Port Markets Strategy Study

Seafish Report No. SR 528

August 1999

Nautilus Consultants
Natural resource economists

SEAFISH

Sea Fish Industry Authority
Seafish Technology

Port Markets Strategy Study
Final Report
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Forward

Each year it has been Seafish's practice to publish an in-depth study of the economic performance of one industry sector and to convene an Industry Steering Group to direct each of those studies; this forms part of the Authority's 'high level objectives' to promote the efficiency of the industry. For 1998/99, the Seafish Board proposed an economic study of port markets that was approved by the Seafish Economics Advisory Committee and the Fish Industry Forum.

The study provides useful background to the dynamics at work within the industry and gives guidance to individual ports on how they should respond to future strategic challenges.

The study was put out to tender and awarded to Nautilus Consultants of Edinburgh who were guided and assisted by a steering group of industry representatives from the various trade sectors. Seafish gratefully acknowledge the contribution of the Steering Group members who are listed in Annex 8.

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Executive Summary

This report describes and analyses the first level markets for fish and provides recommendations for the organisations involved. The report is based on a survey of published data, a telephone survey covering all the UK fish ports and case-studies of twelve ports. The focus of the study is an assessment of the pressures affecting fish markets in UK ports and the development of strategic recommendation.

The generic strategic threats to existing auction markets identified can be distilled to two:

- reduced landings, making fish auctioning less profitable; and
- market pressure from downstream industries for fishermen, merchants and processors to bypass the auction market.

Retailers and, increasingly, processors seek increased traceability, consistency of supply and improved quality definition. It was found that small-scale local processors had the greatest commitment to the auction, so increasing processor concentration is also a threat to auctioning.

The significance of these threats for individual port auction markets varies depending on three factors: the market's scale, the proportion of landed fish currently bypassing the auction, and the ability of traders in the market to meet the needs of processors and wholesalers. In the largest markets it was found that the auction provides an efficient means of determining a current market price, with the depth of demand drawing in fish from overseas and other British ports. In smaller markets the auction's function is principally to transfer ownership, with prices influenced by prices achieved in larger markets elsewhere. The auctions at greatest risk of decline are those trading below something in the order of sixty per cent of landed fish, because this indicates a lack of commitment to the local auction, and the cementing of an alternate trading structure that by-passes the local auction. The future of any existing auction market depends upon the continued mutual commitment of buyers and sellers. Commitment to the auction was found to be of a more social nature for many traders, and this tended to mask commitment based on economic calculation. It is therefore impossible to identify an auction turnover at which the auction becomes non-viable.

The ability of the port trading communities, including port managers, fish sales agents, producer organisation, and port wholesalers, to respond strategically to these pressures is limited by two factors: the financial weakness of many enterprises, and the difficulty of co-ordinating action across all the enterprises involved. To respond to these pressures port trading communities should co-operate to identify their customers and follow strategies to fit with their requirements. It is proposed that this will include a greater role for the provision of market information and the introduction of descriptive and quality systems to meet customer needs. It is recommended that Government and the Seafish Industry Authority both have a role in facilitating these changes by encouraging port communities to approach marketing strategically and co-operatively.

1 Introduction

1.1 Background to study

1.1.1 The changing economics of the industry

Recent and on-going changes in the markets for fish and fishery products and in the composition of the fishing fleets is exerting considerable pressure on UK fish merchants and processors to adjust to the new economic conditions that are emerging. One has only to witness the changes being effected at Seachill and Rossfish in Humberside, and the poor financial results emanating from this sub-sector of the industry for 1998, to understand the extreme nature of this pressure.

Against this backdrop there is growing pressure from industry administrators and managers for some sort of strategic "rationalisation" of the economic geography of the UK fishing port markets; structures that traditionally serve a pivotal role in the mediation of the transfer of fish from fisherman to merchant. Yet the concept of "rationalisation" may be all too simplistic, given the complexity of the economic systems that make up each port market, and the unique identities of each port. No two ports are the same, and no two ports serve the fishery sector in the same way.

It is to address this aspect of complexity that this study has been commissioned, focusing on an exploration of the nature of the pivotal role of fishing port markets in the mediation of the first hand sale of fish. Based on the findings of such exploration, combined with information on the dynamics at work within the industry, the study seeks to map out the development options and strategies open to industry participants for the future.

1.1.2 Pressure for rationalisation

As of January 5th 1999, the administrative system of "designated ports" has been introduced, giving potential economic advantage to those ports included within the designation. In tandem with this "funnelling" of larger vessels to key ports, there has been debate concerning the economic gains to be made from more widespread "streamlining" of ports' infrastructure.

Such debate has questioned the need for quite so many port auctions, and indeed the need for having quite so many fishing ports altogether. Is the industry a suitable subject for such radical restructuring, and if so, is it sufficient to seek to concentrate activity around a few chosen ports, or are less "clinical" solutions more appropriate? The study explores the opportunities and threats that such debate presents, both in the context of the actual commercial landscape of the industry, and in the more specific context of the role of the port market in the first-hand sale of fish. On the basis of such findings, it presents a "plan of action" designed to capitalise on the opportunities, and disarm the threats, posed by the forces for change evident within the industry.

1.1.3 The study brief

The study has been commissioned by the Seafish Industry Authority and agreed by the UK Fish Industry Forum, a cross-industry forum established to give consideration to issues facing the future health and well being of the industry.

The study is intended to provide guidance to:

- policy-makers,
- key industry decision-makers, and
- specifically those associated with the current and future management of the UK's fishing ports.

Instructions to the consultants require that they:

- describe the current port auction market system for fish and identify barriers to change;
- determine the economic function of the auction market, both now and in the context of industry market trends (with hygiene regulations);
- determine the economically viable size and future characteristics of the port selling system for fish;

- determine appropriate strategies for different groups / types of ports and markets (e.g. niche markets);
- make recommendations for changes and for the way changes can be implemented.

The emphasis is on the future - recommendations for improvements to the system, for sustained economic value and viability, and suggestions on the best way of implementation of these recommendations.

1.2 Study history

Whilst the consultants have tested opinions from across the industry, their research has been concentrated on the examination of the first-hand sales systems employed in a sample of fishing ports considered representative of the UK industry as a whole. In addition, interviews have been held with a range of processors, and with buyers from the principal multiple retailers. A list of those interviewed is shown as **Annex 1** to this report, and examples of the questionnaires used in the surveys are shown in **Annex 2.**

The draft findings and recommendations have formed the basis of further consultation through the medium of three regional seminars convened by Seafish and the consultants to debate the many issues raised (at York, Inverness and Newcastle, Co. Down). The findings arising from the seminars have been incorporated in the text, where appropriate. In addition, preliminary study findings have also been presented to and discussed with the members of the Seafish Economics Committee, and members of the UK Fish Industry Forum.

The consultants have been guided in their work by a Study Steering Committee convened by Seafish under the chairmanship of Mike Myers, Industrial Development Officer, Seafish Technology. Four meetings of the Committee have been convened, at which study progress, findings and work plans have been debated.

1.3 Report layout

Background information: As a point of departure in the examination of port markets, and providing a useful overview of the UK fishery sector as a whole, we have prepared dossiers on the main product flows evident within the UK industry, and on current trends in the marketing of seafood in the UK. Since for many readers these elements are relatively well known, we have relegated these overviews to **Annexes 3** and **4** respectively. These annexes do, however, contain information that will aid the comprehension of sector dynamics and the analyses described within the main body of the report. Accordingly we suggest that these, and the other annexes, should be read as background to the main report if at all possible.

The role and function of port markets: In the first section of the main report we provide an examination, from both theoretical and practical perspectives, of the role and function of port fish auctions (**Chapter 2**), since this is critical to the subsequent analysis of the dynamics at work within the industry. Supporting data have been derived from the surveys and background research undertaken by the consultants (summarised in **Annex 5** to this report).

Change and barriers to change: In the next chapter (**Chapter 3**) we explore the nature of key barriers to change, and identify what actions the industry has taken, or is taking, in the light of such constraints. These findings are based on an assessment of the current state of the industry, but also the extent to which changes have occurred over the last ten years (see **Annex 6** for further information).

Strategies for dealing with the future: No two businessmen view risk in the same way and such businessmen, in the pursuit of profitable operation, apply different strategies to navigating a course through the landscape of risks around them. In the next chapter (**Chapter 4**) we explore the many factors likely to affect port markets over the next ten years. This draws on past and current industry trends and on both positive and negative aspects of these dynamics. Using these as benchmarks, we identify what our research suggests is the most likely outcome in practice (see **Annex 7** for further detail).

We then move on, through an examination of the past, the present and possible futures, to identify (in **Chapter 5**) key threats and opportunities that face the industry, and the impacts these might have should the industry fail to address them.

In the next chapter (**Chapter 6**) we draw together the main conclusions from our researches. In the following chapter (**Chapter 7**) we make recommendations as to how port managers and port users can best accommodate the short and medium term changes that are likely to impact on their operations, and provide the outline of a programme for action.

2 Economic analysis of the port markets

The following analysis has been developed after conducting interviews at the 12 case study ports and carrying out a telephone survey of the main fishing ports in the UK (43 in total).

No individual port manager or sales agent felt able to give responses to all the questions posed. This illustrates the lack of statistical data available and also suggests decisions are being made without a quantitative basis. In particular, few were aware of the volumes of trade in fish bypassing the auction and thus the overall size of the potential market for a port's auction should 100 per cent of fish entering the area pass through it. A better understanding was given of the fate of fish being landed directly to the port.

A lack of complete official statistical data and inconsistent parameters in recording by individual ports has presented greater difficulty in terms of comparative analysis. The survey has, however, produced some consistent findings and allowed for the development of a simple typology. We have used our best efforts to consolidate the data we have drawn together within the study period. These data are shown in **Annex 5** to the report.

2.1 Overview

The market for fish in ports is varied. It includes the direct trading of fish to processors, the consigning of fish for sale by auction elsewhere, the auctioning of locally landed fish, and the auctioning of fish consigned from other ports. The institutional structure of port fish markets is also complex, including boat owners, agents, fish-selling companies, auction operators, wholesalers, processors and harbour owners. This institutional complexity is complicated by widespread partial vertical integration.

Sellers and their agents can choose which channel they sell fish through and buyers can also decide whether to buy through the auction or trade directly with boats (or their agents). In a purely economic analysis of fish trading the expected prices, the fees and commission payable, together with the risk involved, influence these decisions.

The typical fees structure in British ports is a charge of between 2 and 3 per cent payable to the harbour for landing fish, and a charge of between 4 and 6 per cent for selling the fish, charged by the agent / fish-selling company. In ports with fish auctions the landing dues include an element for the maintenance of the auction facilities, leading to an element of cross-subsidy between direct traded and consigned landings which by-pass the market and the auction. Where agents consign fish to other markets there is some apportionment of commissions paid to the two fish selling companies involved, but for trade directly with processors there is little evidence that the fee structures recognise this.

About two thirds of fish landed to UK ports, by value, are landed to auction ports. In addition, a little under ten per cent of total UK landings originate from foreign vessels and these are, in the main, also landed to UK auction ports. About a quarter of total landings, by value, are landed to non-auction ports (made up predominantly of nephrops – about a third of total landings – and other shellfish – about two thirds of total landings).

A little over half of all landings to the UK, by value, is sold by auction. Most of this comprises local landings of demersal species, accounting for about three-quarters of all fish auctioned at UK port auctions. The remaining twenty-five per cent is made up of white fish imports and some sales of nephrops. Auction sales of local landings are augmented by imports of fresh whitefish, notably in respect of supplies to the Humberside ports. In addition, some nephrops is sold by auction in Northern Ireland (and more recently Troon), but little to no other shellfish (bivalves, crabs and lobsters) is sold at auction. No pelagic landings are sold by auction in the UK, though landings to continental ports (Norway in particular) are often sold by auction.

About 60 per cent of landings to auction ports are sold by auction in the port of landing (equivalent to 40 per cent of total landings to UK ports). A little under ten per cent of landings by UK vessels to UK auction ports is consigned for auction at other UK ports. Accordingly about a third of fish landed to auction ports, by value, is sold by direct negotiation. Some of this, more particularly in Northern England and Scotland, is sold on the basis of contract, though the distinction between a contract and a negotiated trade is generally difficult to discern.

About half of all fish landed to auction ports, by value, excepting nephrops (where the proportion is a third), is sold at second hand by businessmen in that port (i.e. value is added by local businesses between first and second sale). The equivalent for non-auction ports ranges from about fifteen per cent for pelagic species to sixty per cent for flat fish.

Much of the fish landed to UK ports by foreign vessels is over-landed to continental auctions and processors. Nevertheless, small but significant proportions are sold on UK auctions and/or traded and processed by UK companies.

It is a generally held view that more fish is sold by direct negotiation than by auction than was the case, say, ten years ago – even though this is very difficult to establish on the basis of available figures. In itself this should not be seen as in any way bad. The first hand market in fish is dynamic, the market has adapted to changing trade patterns, and the industry is actively exploring ways of maintaining its competitiveness. Nonetheless, against these very positive characteristics must be set the less positive aspects that the industry's efforts have been un-focused, have been overly reactive, and have lacked strategy.

Figure 1: Estimated value of fish sales as auction ports, 1997

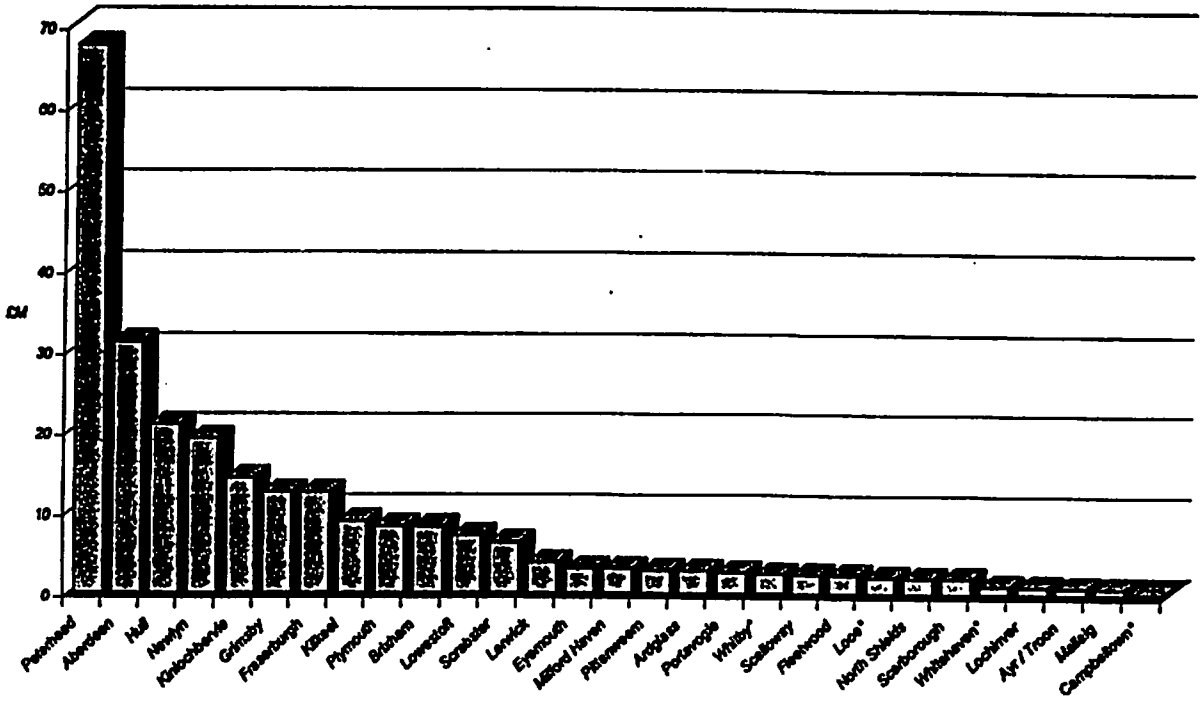


Figure 2: Landings compared with estimated auction turnovers

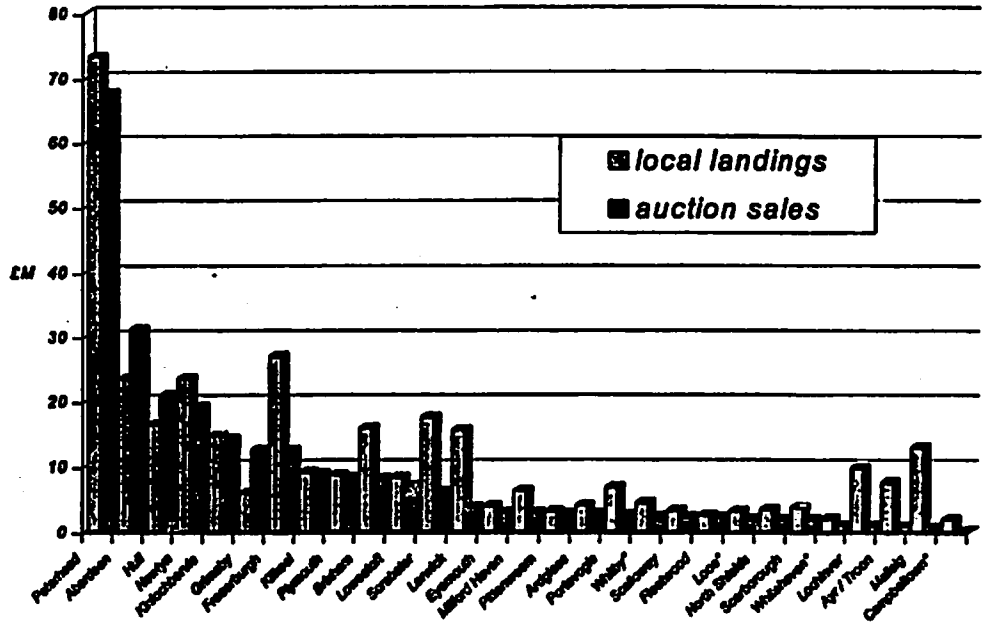
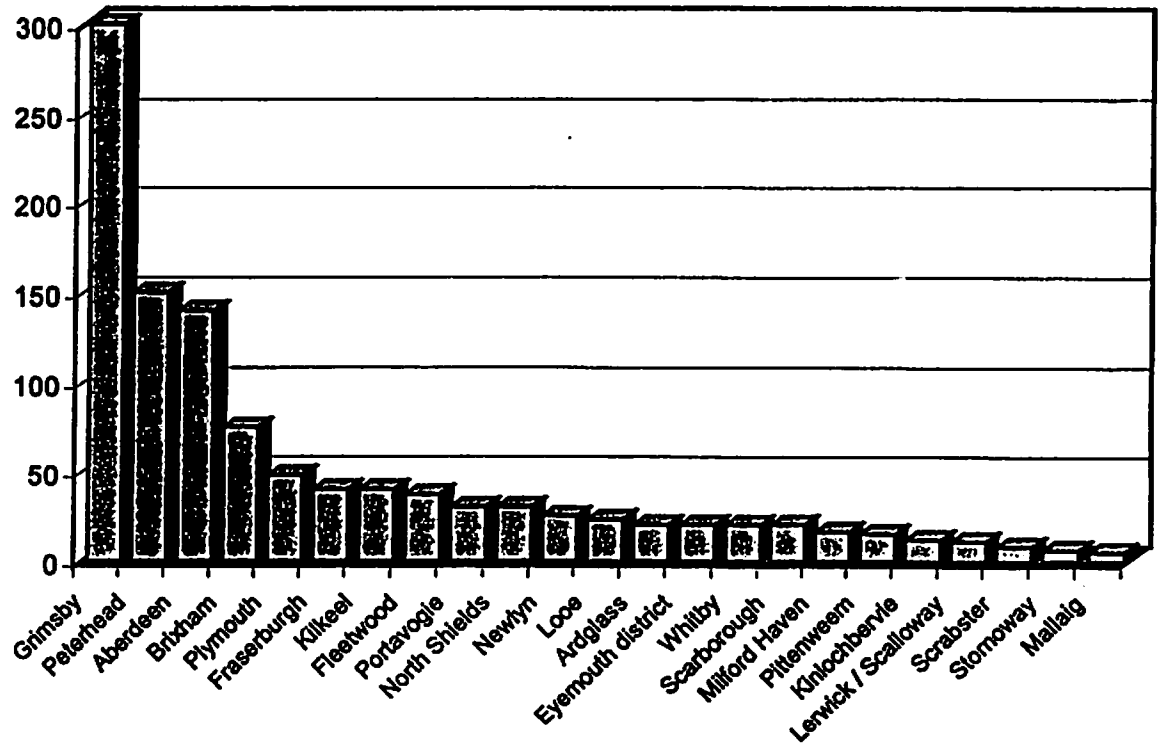


Figure 3: Number of active buyers per port (for those ports where data are available)



2.2 Port typology

The UK fish port markets may be split into four categories:

1. ports in which auction sales exceed the value of local landings (Peterhead, Grimsby, Hull, Plymouth);
2. ports in which the auction trades are less than total local landings, but where auction sales of demersal species amount to more than sixty per cent of landed value;
3. ports in which the value of demersal sales at auction are below sixty per cent of the value of demersal species landed to that port
4. ports without auctions.

The distribution of auction ports according to this typology is shown in Figure 4 below, with categories 1 to 3 running from left to right. In the category 1 ports the existence of strong demands from local processors and the large numbers of buyers in the markets provide the market with depth as in Peterhead, Hull and Grimsby. Fleetwood and Plymouth have been successful in drawing in consigned supplies from ports lacking auction markets through the existence of a competitive market of many local processors able to absorb consigned fish.

The larger category 2 ports are those where more fish is bypassing the auction than is being consigned into the market. In these ports the danger exists that the attractiveness of direct trading or consignment to a more competitive market will progressively undermine the auction. In both category 1 and 2 ports the growth of direct trading and contracting threatens the scale of the existing auctions.

In the category 3 ports the lack of an auction market creates the danger that landings will be redirected made to nearby auction ports, with consequential loss of landing dues to the harbour.

Figure 4: Typology of auction ports, by estimated auction turnover (£M)

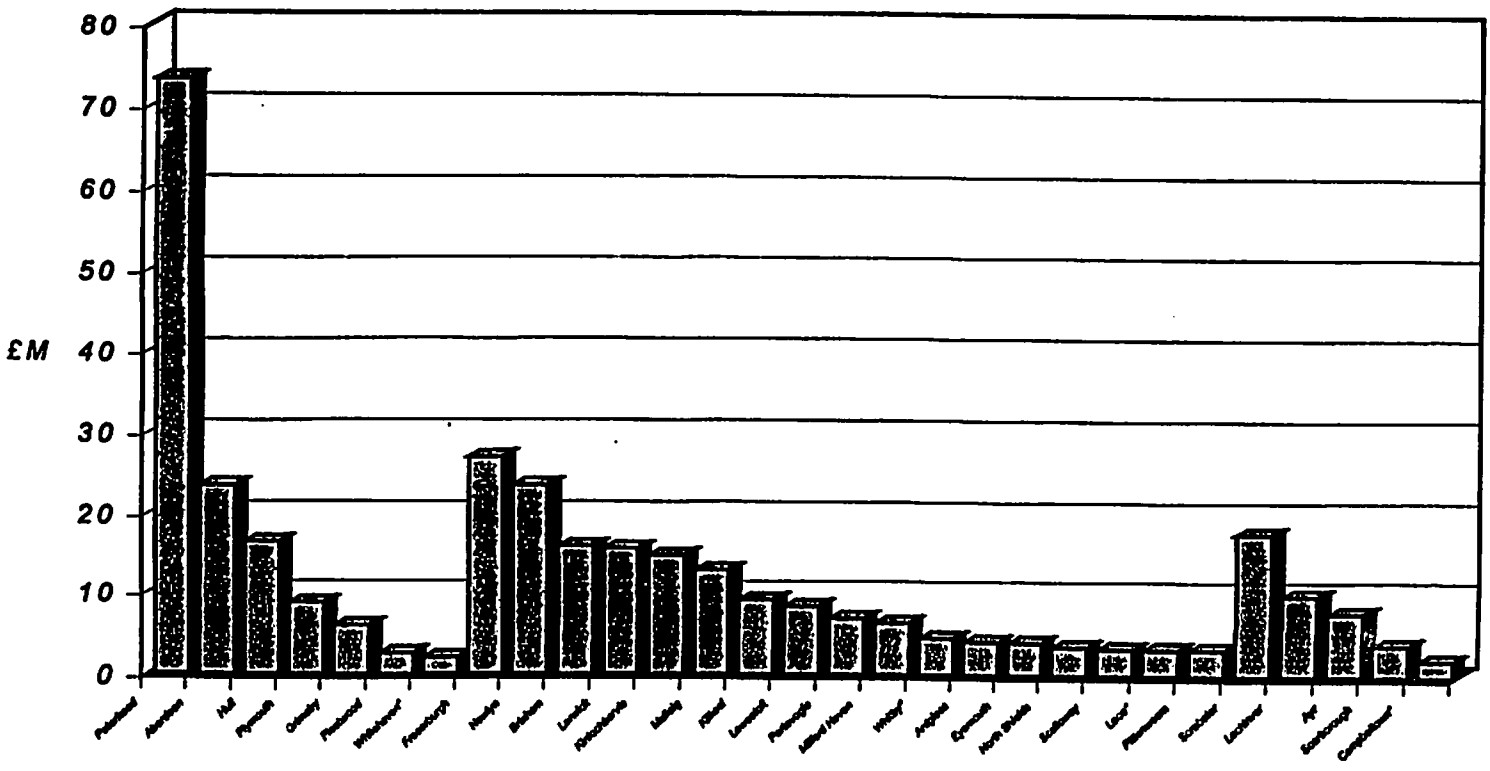
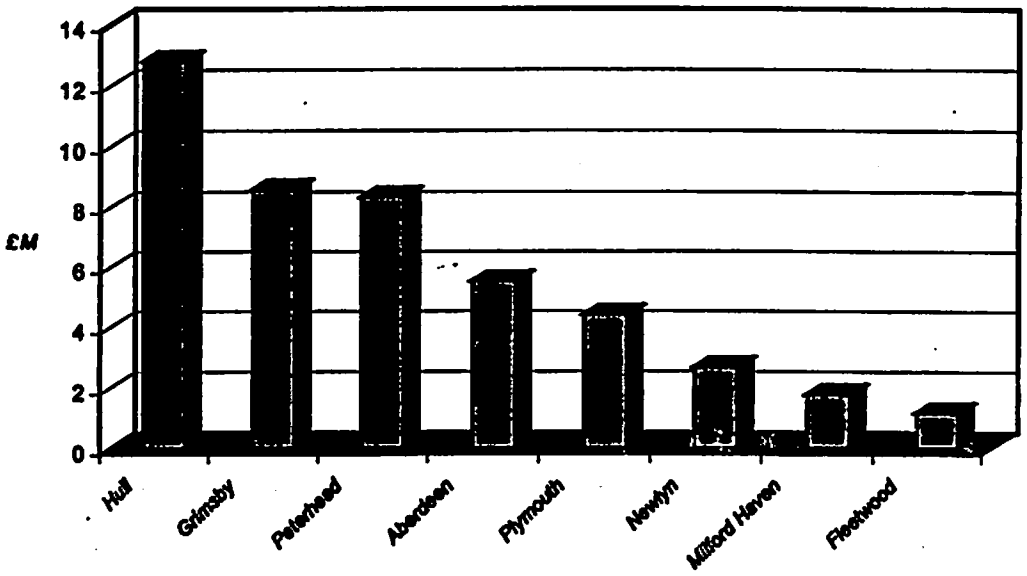


Figure 5: Estimated value of fish consigned to category 1 and some category 2 ports



2.3 Auction functions

For the use of the auction by both buyers and sellers to be economically rational, the aggregate value provided to them through using the auction should exceed that provided by direct trading by at least the total fee charged by the auction. Auction markets may be viewed as having five overlapping functions which provide this value to traders:

- price discovery
- credit guarantees
- logistic
- description
- information dissemination

The relative importance of these five functions is dependent upon the nature of the market.

2.3.1 Price discovery

The most obvious function provided by an auction is determining who is willing to pay the most for a lot. For sellers the decision to use the auction is a choice between a negotiated price for trading around the auction versus the uncertainty of the price that will be achieved in the auction. The greater the uncertainty that the direct trade price represents a fair market price the greater will be the value of the auction for the seller. The price achieved competitively in the auction may therefore be seen as the "true" market price for the lot, taking into account the prevailing balance between supply and demand. For a commodity subject to irregular supply this ability to accommodate such changes in supply reduces the uncertainty amongst sellers that they might not be receiving a "fair" price for their product. For sellers a strength of the auction is therefore that the competition amongst buyers makes it appear that they have received a fair price, but this requires there to be sufficient buyers for the market to be seen as competitive. As the number of buyers in the auction reduces, the value of this declines. Also, as sellers gain greater trust in the ability of agents to broker direct deals the price discovery value of the auction declines.

In interviews with buyers in smaller auction markets it was found that the concept of a fair price was heavily influenced by the prices achieved recently in larger auctions. Therefore, for both buyers and sellers, the price discovery value of the auction declines as they gain confidence to trade directly on reliable price information from elsewhere.

2.3.2 Credit guarantees

By monitoring the credit worthiness of buyers, and insuring the credit risk, the operators of auctions are able to guarantee to sellers that they will be paid. The value of the credit guarantees provided by trading through an auction diminishes as trust develops between fishermen and processor. Agents can provide credit guarantees to sellers. Agents can also monitor their exposure to risk and insure against defaults. Therefore, while auction markets have provided the traditional means of insuring sellers against defaults by buyers, this need can be met through alternative means.

2.3.3 Logistic

The auction market provides a centralised location at which landings can be broken down, inter-mingled and consolidated for onward transport to processors. This logistic role includes the breaking up of loads into smaller quantities suitable for smaller scale or specialist purchasers and the aggregation of fish into more consistent loads for larger purchasers. While the use of the auction hall for only a few hours per week appears an inefficient use of space, the bringing together of buyers and sellers into a single location at a fixed time makes the auction an efficient way for buyers to locate and view fish on offer. The auction is therefore a means to display to a range of customers what is on offer at a particular time and in particular quantities. When asked why he used the auction a small-scale wholesaler responded "because it is where the fish are."

In many markets it was also evident that smaller buyers took it in turns to bid for supplies and then sold them on to fellow small-scale operators. These short-term consortiums are currently limited to the auction only, and are not extended to contract fishing deals or to being pro-active in direct sales.

However, the logistics functions of the auction market do not of necessity require an auction, because in theory another facility could be available for traders to sort, break up catches and trade bilaterally.

2.3.4 Description

In an auction where all the buyers are able to inspect the fish prior to bidding the value of accurate weighing and descriptions is small to buyers. The sale of fish remotely, whether by offering them to distant buyers or by allowing distant buyers to bid for them on electronic auction systems will require the sorting, grading and describing of fish in terms comprehensible to the body of buyers. The value of these descriptions to buyers will be determined by their acceptance of the description system and their faith in the assessors to describe the fish accurately and consistently.

To have all fish placed on a market described using a discriminating classification such as Torry involves a cost. If an auction market is opened up to remote bidders by an electronic system this description must be made before sale and becomes a cost for all market users. However it is of greatest value to transient and distant buyers, potentially enabling distant buyers to bypass the use of a local agent buyer. For local buyers buying on reputation and direct inspection the value of the description is much less.

The description of fish by agents for sale directly to distant processors is less problematic because they are being described in the expectation that a distant buyer will buy them and the buyer will have an awareness of the assessor's reliability. Paradoxically, if fish are described for the benefit of distant buyers bidding on an electronic auction system, once the fish has been described the auction becomes less valuable to both buyers and sellers because the uncertainty about the fishes' value will have been reduced. Buyers will not only have a more reliable estimate of what these fish are worth to them but will also, by monitoring the prices achieved in markets with reliable grading, be able to estimate the current market price.

2.3.5 Information dissemination

The auction market acts as a mechanism to produce and disseminate information about fish prices and quantities. Taking part in the auction provides participants with information about the levels of demand, supply and prices. All of this information is of value to sellers and buyers. However, traders can attend the auction and observe the trading, gaining this information without contributing to the costs of its generation.

All players in the market would like more information that is accurate, but they would, however, prefer if their competitors did not have access to as much information as they did. The current auction system does not provide all the transparency it could, but many operators like it this way. Those with sufficient experience are at an advantage if they can sift through the noise to discover the true situation.

Sellers are reliant on agents to be aware of current auction information, as the auction process is only obvious to those operating within it regularly. Thus, agents are keen to maintain catchers' dependence on their expertise. Buyers can use their market knowledge and contacts to assess the situation in several auction markets. Widely available, standardised information covering forward visibility of landings to the auction and historical information on prices, weights and grades would make their life easier, but it would also make it easier for all the other buyers. The competitive advantage enjoyed by buyers with extensive access to market information through informal social contacts would be eroded.

The future impacts of greater forward visibility are complex and will depend upon who controls the broadcasting of the information. In the short-term it is probable that releasing more reliable information to buyers about future landings to be offered on the auction will in the short-term strengthen the auction by drawing in buyers. However, in the longer term forward information will undermine the auction market, especially if the information is broadcast by agents rather than the auction market operators. As agents and auctions begin using the Internet to broadcast the details of future landings and buyers learn to trust the off-shore description of fish by known boats buyers will approach the agents to forestall the fish reaching the auction.

2.4 Practical implications for users

The relative importance of each of these five aspects will differ for each market user depending on his relative scale as well as his position in the supply chain. For sellers the decision on whether to use the auction will be shaped by whether the additional cost of selling through the auction will be exceeded by a higher price received. Conversely for buyers the decision on whether to use the auction is dependent on the expected value of using the auction exceeding the expected increase in costs. In this evolving dynamic environment the economics of the port fish auction are changing, with the value of the auction for price discovery, credit guarantees and information falling.

The two significant changes impacting on auction markets are:

- increasing inter-linking of markets;
- increasing direct trading which by-passes the auction market.

2.4.1 Inter-linking of port markets

As price information is exchanged between buyers in dispersed auction markets the markets will increasingly behave as a single linked market. The breadth of this linkage will be determined by the extent to which buyers span across the market. Where there are buyers sourcing from across Europe a pan-European linked market will form informally, but where a species in a market is overwhelmingly bought by more isolated local processors the market may be divergent from markets elsewhere. More reliable quality description increases convergence between markets because it makes it easier to make comparisons between markets taking account of differences in quality. This convergence of markets is a strategic issue because as markets converge the use of the auction in peripheral markets becomes less important for price setting.

2.4.2 Direct trades

Increasingly processors are seeking to bypass the markets and source direct from boats. Multiple retailers in particular are putting pressure on processors to bypass the market, citing the loss of quality suffered in market handling and the weakening of traceability. Catchers will be willing to trade directly if they are confident that in the long term they will not suffer relative to selling through the auction. This is not solely a matter of whether prices will be higher or lower in the market, as they may be willing to enter into a long-term relationship with a customer to provide them with more stable prices, effectively selling-on some of the risk caused by price instability.

There is widespread suspicion that the pressure for contract buying from the multiple retailers will lead to a reduction in the prices paid to catchers. Experience in the meat sector, however, suggests that once the processors gain an understanding of the reputations of catchers and grading, and catchers learn the retailers' quality requirements, direct trading prices will be above open auction prices, with the retailers paying more for consistency of quality and supply. The increased credit risk for sellers can be covered by insurance. As in the more developed direct trading of meat, most sellers trade directly because they believe in the long-term it is in their financial interest to do so, with the option of auction selling always available.

2.4.3 Social linkages

The underpinning of the move away from auction sales towards greater reliance on contract sales is the trust in the relationships between seller and buyer. At one extreme the traditional auction may be seen as the trading of fish between anonymous buyers and sellers, where it is the physical inspection of the lot which determines its value to the buyer. In practice the buyer's valuation is strongly influenced by the reputation of the boat that has landed the fish or, in the case of remote sales, the agent who has described the fish. It is therefore only a small step for the significance of reputation to lead buyers to approach known boats and agents to buy fish before they have been placed on the market. These social linkages and reputations reduce the risks of trading around the auction and therefore reduce the effective benefits of using the auction. However, a move from placing fish on the auction to the brokering of direct trades requires catchers to trust the expertise of the agent in gaining a fair price. In bypassing the market the catchers can no longer see immediately that they have received the competitive price.

The value of both credit guarantees and independent description are greatest where buyer and seller are ignorant of each other. As a relationship develops between buyer and seller and they become confident of each other's reputations the value of these falls. Therefore social links will tend to erode the use of the auction market and the auction markets will be especially susceptible in small ports with stable communities of buyers and sellers. For buyers buying across a range of markets the stability of social linkage with their buyer agents in the ports will reduce the value of credit and description guarantees.

2.4.4 Implication of a decline in auction sales

As direct trading increases, the costs of operating an existing auction market will remain largely fixed. However, with income tied to landings for many auction owners it will only be if boats divert to other ports that incomes will fall significantly. The expertise of fish-selling is still required in direct trading and the increased requirement for reliable grading and box management in remote selling will ensure that agents still have a role in the future. While auctions may decline the need for facilities for the sorting, grading and trading of fish will remain.

2.4.5 Spot markets

As the proportion of fish sold through auction markets declines, as seems likely in some instances, the overall role of auction markets is unlikely to disappear completely. In smaller ports the auctioning of fish may continue but the dominant function of the auction will be the bringing together of buyers and sellers and the providing of a facility for sorting and grading. In these markets the broadcast price information from larger markets will be the most significant influence on prices. Auction markets in the larger ports will still provide a spot market for buyers and sellers who are respectively short or over on fish, enabling them to balance out variations in supply or demand with their core customers or

suppliers. These spot markets may be restricted to those ports with sufficient numbers of traders to guarantee a viable market of buyers willing to pay for the convenience of fish being available and sellers willing to receive less for off-loading fish at short notice relative to their direct trades. The volumes traded in the spot markets will be lower than in the current markets but the commissions can therefore be higher. The prices achieved in the auctions will remain an influence on the prices negotiated in direct trades and in smaller markets.

3 Change and barriers to change

3.1 Introduction

Below are discussed the main barriers to change that can be identified from an analysis of the current dynamics within the industry, and from an assessment of underlying trends in the recent development of the industry. A comparison of change factors now and ten years ago on which this analysis is based is shown in tabular form at **Annex 6.**

From the table presented in **Annex 6** it is evident that much has changed over the past ten years. In fact, the extent of such changes is surprising, given the generally held view that the industry is hide-bound, steeped in traditional practices and highly resistant to change.

Whilst there is evidence of considerable dynamism within the industry, it is clear that regulation and legislation have been at the heart of many changes, and that industry driven change has tended to follow short-term objectives; disappointingly, there has been little evidence of a strategic basis to change.

Barriers to change act in two ways. They constrain change as they restrict the development opportunities open to the industry. They also act as a stimulus for change, as at the extreme these constraints force a shift away from the status quo.

3.2 Financially weak sector

A major barrier is the fact that profitability in many parts of the industry has been poor for some years, soaking up what financial reserves companies have amassed from earlier good years. This situation does not by any means affect all of the industry – there are many enterprises (vessel owners, vessel agents, merchants and processors) that are staying ahead of the game, and indeed capitalising on the weak state of other parts of the sector. But for those companies in the industry that have been less able or prepared to identify and respond to changing market and economic conditions, a poor trading record has left them unable to finance the changes that will allow them to compete successfully in a dynamic market-place.

Sudden changes in costs that might, on their own, be considered uncomfortable but manageable have combined to threaten the very survival of enterprises. Current examples of such costs are: the costs of meeting vessel safety requirements, the costs of upgrading market premises, the costs of upgrading processing premises, waste water charges, veterinary inspection charges, the escalating prices of quota, fluctuating raw material costs and reduced offal prices. Thus, the weak financial state of the sector is, in itself, a major barrier to change.

And yet it is this very weakness that now heralds a period of potentially massive readjustment – a process that is already well advanced in the fleet sub-sector, but which has yet to take full effect within the post-harvest sector. These changes are likely to put increasing pressure on market operators, and the port auction system itself, to evolve more open and transparent sales systems. Only by doing so will the efficiency gains and costs savings that the industry is being encouraged to institute be supported and enhanced by the first hand sales system. If this does not occur, an increasing proportion of sales will be made by direct negotiation.

3.3 The absence of a strategic framework

The industry shows great reluctance in taking the more radical steps that many consider necessary to secure a healthy future for the industry – a stance linked to the underlying sociology of the industry.

Businesses are changing to accommodate regulations imposed on them in a reactionary fashion rather than changing to secure competitive advantage in short, medium and longer terms. Many factors contribute to the disinclination of businesses to take a co-ordinated strategic approach to the future, not least the traditional fragmentation of the industry. But ultimately this is no excuse.

In part the industry is too busy looking after today to think about tomorrow, and lacks the institutional structures capable of undertaking a strategic planning role. Port management committees all too often

focus on the short-term, unable to establish direction and consensus on strategic issues. By the same token, sub-sectors of the industry do not recognise the value of funding permanent strategic planning capacity – at sub-sector level, at port level, at a regional level – and are over-dependent on periodic interventions funded by local government. In the absence of such structures, in the absence of strategic planning, and in the absence of the intent to manage change, the industry will continue in re-active rather than pro-active mode.

Similar failures are evident in the industry's reluctance to finance and make use of the systematic collation and strategic use of market intelligence.

This mind-set is further supported by current systems of economic appraisal of industry development projects that fail to address industry structure issues at an appropriate scale (dealing at a local rather than regional level). Instead they tend to support overly optimistic assessments of use based on the capture of business from neighbouring industries that are applying the same logic in support of their own development plans.

3.4 Industry structure distorts passage of price signals

It is recognised that there is room for significant improvement in resource stewardship, but existing supply chain structures constrain the transmission of price incentives for good stewardship to the producer. On the one hand consumer buying patterns show relative indifference to the concept of good stewardship, and show little inclination to pay more for fish from well managed fisheries. On the other hand, prices paid to producers for high quality fish do not appear sufficient incentive to encourage widespread improvements in handling practices – despite the critical relationship between product quality and at-sea handling practices. One aspect of this is the lack of transparency in typical auction sales practices and reluctance to reveal the prices paid for different qualities and quantities of fish. Another part of this is the reluctance on the part of traders to open the port auctions to wider competitive forces. This institutionalised reluctance to disclose price information distorts inter-port comparisons, and effectively restricts purchases to those with an intimate knowledge of local conditions.

Similarly it is recognised that there is much room for improvement in industry practices but, once again, current industry structures – notably the fishery management regime (strong incentives remain to catch and land over-quota fish), and the failure to enforce standards (on-market codes of practice are widely flouted, and the over-filling of boxes remains common-place in Scotland) – tend to act against the adoption of good practice. Under such structures, the distortion of price signals currently yields better returns to vessel owners, agents, merchants and processors alike. A consequence of this is that the industry has been very slow to react to the scarcity of raw material brought about by resource constraints, other than to seek to catch more than seems prudent in the longer term interests of the industry. Few are in any doubt that change is inevitable, but continuing imbalances within the industry favour procrastination, to the medium term detriment of the industry.

3.5 Fragmented port structures hinder strategic development

There is a general failure on the part of port users in UK fishing ports to take an integrated strategic view of the development of any given port, or to engage in effective joint planning for the future. This behaviour is at odds with industry practice in competitor ports on the continent, where active cross-industry support for strategic planning and port promotion is the norm.

Whilst, in the absence of industry co-operation, these functions of necessity default to the port owners, this is unfortunately the typical state in most ports. Accordingly, few ports are able to market themselves effectively as a single commercial entity (albeit within which are nested the full range of independent industry sub-components that make up a fishing port).

This state of affairs reflects the typically fragmented nature of the fishery sector - a situation not only found in the UK. But more worryingly it reflects the extent of separation between the different industry strata – inshore fishermen, offshore fishermen, vessel and fish selling agents, merchants, processors, transporters – and their separation from the management and regulatory organisations and authorities. This situation is not so evident in continental ports.

Though fragmentation is widespread in the European fisheries sector, a large proportion of continental ports has overcome this hurdle through more structured management and a common port strategy. In most continental ports there is a clear sense of common commercial purpose which unites the disparate components of the industry. This is further enhanced by close co-operation between local government and port operators.

In most British ports this sense of common commercial interest is more mute, and whilst local government extends considerable support to the UK fishing ports, its support is less overtly commercial and more bureaucratically constrained. As a result it puts British ports at a clear comparative disadvantage, a disadvantage that the trade has to continually expend effort in over-coming. For almost every port involved in significant levels of trade with the continent, there are signs of the economic costs of such a situation. These take many forms; for example - more local boats landing direct to the continent; continental companies establishing their own sourcing and trading operations in key ports; landings by foreign vessels consigned direct to their home ports; distribution to the continent dominated by continental transporters; and processing undertaken on the continent rather than locally. Not all of these things need to be so.

There is no single formula that will overcome the different and strongly held views of the different elements of the industry, and no structure that can bring order to people, and their enterprises, if they do not wish to be ordered. The managers of such enterprises need to be won over to the benefits of achieving synergy at port level.

In the first instance, the port planning process needs to be strengthened:

- port development strategies should be drawn up with cross-industry participation;
- port user committees should form an important, representative, active and well-used structure for input to the planning process and for conflict resolution (they need teeth, by dint of the extent to which they reflect port user interests, by the high respect in which its members are held, and by the fact that the debates and outputs of such committees do actually translate into actions).

In the second instance, consideration should be given to placing the management and operation of the port market in the hands of a single company, as is the most common practice on the continent. This impacts directly on the role of the fish selling agents. The predominant structure in the operation of UK fishing port markets is that the port owner (whether council, trust or private) provides and maintains the facilities (building, fixtures and fittings, and basic services – cleaning, porterage), but all fishing ports leave the auctioning of fish to the fish selling companies. These companies are typically the principal vessel agents in any given port.

3.6 Imbalances in under-lying industry economics

There is growing incompatibility between a finite natural resource base, rising industry costs, a falling international supply of raw material to processors, and recognition that further price rises are likely to shift consumer demand to substitute proteins. Industry trends suggest that margins are insufficient to support the large number of operators (large and small) that currently make up the industry.

Making added value gains, primarily through improvements in the quality, and thus value, of the fish landed, will go some way to squaring this imbalance. But the scene is set for an inevitable shake-out of the post-harvest sub-sector, with businesses desperately seeking efficiency gains through cost cutting, and others re-aligning to more rewarding segments of the market. Others still will be forced to leave this sub-sector – some for good, some to service the new first-hand sale structures emerging within the industry (weighing and grading, transport, quality control, accounting, information exchange, computing).

An indication of the disparity in post-harvest output per employee in the UK relative to its competitors may be judged from 1991 estimates - €15k per employee for the UK relative to €28k for France, €29k for Denmark, and €50k for the Netherlands[1]. In the move to reduce costs, the post-harvest sector will seek greater transparency at auction market or, failing this, will seek to reduce risk and costs through direct negotiation with vessel agents and vessel skippers.

[1] Calculated from output presented in the Summary Report of the Regional, Socio-Economic Studies in the Fisheries Sector; DG XIV, 1993.

3.7 Poor or, at best, mixed public image of sector

The fishing industry is regularly the subject of both good and bad press, but on balance the concept of over-fishing and unsustainable practices seems to have captured the consumer's, and others', consciences. Most not directly associated with the industry remain particularly poorly informed about the issues facing the industry, and industry efforts to change this state of affairs have been relatively ineffective. Whilst few are in doubt that matters need changing for the better, and the industry is very forward in pointing this out, the poor public image and simplistic nature of the views expressed on the issues facing the industry tend to work to the industry's disadvantage.

This state of affairs impacts on the views expressed by national and local politicians, and ultimately on the allocation of public resources to matters of fishery industry development. A lack of development focus, and a weak, if not negative, public image is likely to reduce rather than enhance financial allocations to the sector. Combined with the expansion of membership of the European Union, and a significant reduction in the allocation of Structural Funds to the EU15, what limited public funds may be available for development of the sector will be lessened by the effects of a negative press. Under such circumstances, over-reliance on public funding of port market restructuring is inadvisable.

3.8 A skills and manpower crisis

The changing demography, social and economic geography of the country, together with the wider career and life-style choices open to school-leavers, are such that attracting new and appropriately skilled recruits to the industry is particularly difficult. This acts as a major constraint on the capacity of vessel operators and processors to maintain competitiveness and efficiency for the future.

4 Exploring the future of markets

4.1 What happens between now and 2010?

In this section we explore the main factors that are likely to shape port markets in the coming years. These are drawn from a scoping exercise intended to highlight the different facets, and consequences, of change. This document can be found at **Annex 7** to this report. The scoping exercise draws on an assessment of past industry trends, current industry dynamics, and positive and less positive outcomes resulting from such dynamics.

4.2 Changes in resource access

Despite widespread evidence of restructuring within the fishery sector, the next few years will herald movement towards a period of increased stability within the sector, on both UK and European bases. Key to this shift will be the effective transfer of the entitlement to harvest marine resources from the State to commercial entities (though outright ownership will continue to rest with the State). Such commercial entities will comprise individuals, private shareholder companies or entities representing the specific interests of coastal communities or regional economies. This shift, already underway, will revolutionise the way that the sector goes about its business, and how it is managed.

Consequences of such a shift will include:

- closer ties between ports and specific fleets,
- reduced fleet mobility (most noticeable in medium sized vessels),
- the natural establishment of closer economic ties between coastal communities and the marine resources closest to them, and
- moves to favour quality over volume and more conservative resource husbanding over "the race for fish".

4.3 Co-operation

Fishermen will be seeking to "market" a higher product specification, and will expect to receive a fair and more predictable market price for such product. Accordingly, an increased proportion of landings will be marketed through continental channels, and to the upper end of the UK catering trade, where the demand for high quality is reflected in the prices paid. To achieve this, vessel owners and their skippers will seek to reduce supply-side fluctuations through improved co-operation and co-ordination in their fishing and landing activities. To support them in these moves they will seek increased access to information on the flows of fish into the market place, and will expect higher levels and qualities of service provision by their agents and other port-based service providers.

There is likely to be significant movement towards this increase in co-operation, but ten years is too short a time to resolve such a complex issue; nevertheless the link between vessel and port, and vessels and buyer, is likely to become more stable. Skippers are likely to seek improved depth and quality of support from port services, and increased transparency in information provision, in product pricing, and in first hand sales systems.

4.4 Competition between ports

There will be winners and losers in this area as UK ports seek to out-compete each other as well as to out-compete the other ports located along the Atlantic seaboard of Europe. There is already evidence of over-capacity on a regional basis which, if continued, will require such ports to levy higher service charges than competitors that have achieved a better match between designed and actual capacity usage. Where ports seek to compete in the same market-place, and construct infrastructures that together are clearly at odds with practical usage, it is plausible to suggest that at best only one such port per region will achieve efficient operation. There remains a strong possibility that none will achieve appropriate standards and costs of operation, although this is likely to be avoided where ports

seek efficient operation through specialisation. An interesting example of this type of conundrum where ports have both increased infrastructure capacity and sought to specialise is the relationship between the ports of Kinlochbervie, Lochinver and Mallaig.

There is little historic evidence to suggest that the UK industry is capable of taking a concerted position on the strategic development of its ports, and is thus much more likely to opt for out and out competition. Despite this, however, it is likely that strategic alliances will be struck between ports (both at UK and wider European levels) where common interests are identified. Some will share similar specialisations, others will get together because they do not share similar specialisations but rather complement the nature and scale of services and products provided to potential clients. Such alliances will be most in evidence between smaller ports seeking to capitalise on the highest qualities of product and service. Differences in ownership and management structure of British ports will in some instances make such strategic alliances more difficult to achieve.

4.5 Competition in a European context

Advance bases for foreign companies have already been established in various parts of the UK. In the main they are thought to be exploiting transient market opportunities which are disappearing as indigenous companies become more adept at meeting the market requirements of foreign customers. A failure to embrace modern communications and information exchange technologies will, however, once again encourage foreign operators (who have already embraced IT) to exploit transient market opportunities. The range and quality of services that a port can provide in supporting the first hand sale of such fish will be critical in where and how such sale is transacted – whether it is by auction, contract, consignment or direct sale.

On past performance the probability of the UK industry failing to take a strategic approach to marketing remains high. Similarly, on the basis of past performance, the industry is slow to adopt new technologies (unlike competitors on the continent). Nevertheless, the finite nature of the resource and the strength of demand from continental markets are unlikely to diminish the trade, but inaction on the part of the UK industry will cause it to lose out on these profitable market opportunities.

4.6 Restructuring in port markets

The inevitability of major restructuring amongst fish merchants and processors will sharpen their quest for containment of costs, and the achievement of operational efficiencies. In part they will seek to achieve this through improved information flows within the supply chain. Though preferential access to information will remain a powerful tool, the flow of price, quality and supply information within the industry will be greatly increased.

There is likely to be further growth in the off-market trade in fish (through both contract and direct sale). Currently some fifty per cent of all fish landings, by first hand sale value, are estimated to be sold by auction. This proportion could reasonably be expected to fall to something in the order of 40 per cent over the next ten years should the UK sales infrastructure continue to favour the move to off-market sales. Under current arrangements this downturn in traffic across the auction markets simply means the further under-utilisation of the available facilities and resources allocated to the operation of these facilities. Analysed on a cost centre basis, however, such a shift challenges the already shaky economics of facility operations in many ports.

Those port auctions serving distant markets, and where a variety of grading standards may be appropriate, will tend to opt for tight product specification, and probably the use of electronic auctioning and trading systems. For the domestic market, port auctions selling relatively small volumes of high value and high quality fish are also likely to opt for such narrow specification, and possibly the use of remote bidding systems. Trade in large volume products will continue to be by box unit, albeit in line with broadly accepted, and much improved, standards of market operation.

Vessels are already regularly in contact with their respective agents, informing them of their progress; this forms the basis of much of current direct and contract sales of pelagic and demersal fish. Accordingly the switch to the use of more formalised systems is very likely, but this will only form one of several avenues open to skippers and agents for the disposal of catches. Retaining a flexible approach to first hand sales is likely to dominate, incorporating quayside auction sales in most ports

where they currently exist, together with a variety of negotiated sales systems. Weighing and grading at sea, and the take-up of the option to sell whilst at sea, are likely to accelerate the adoption of improved forms and levels of information exchange.

In many ports the physical structure of the port market building will become less associated with the port auction than with the place where fish is received, sorted, graded, and laid out for inspection. The auctions themselves will increasingly take place away from the fish, using an electronic system, though the practice of selling some fish by shout auction will undoubtedly continue where there are large volumes for local buyers/processors and multiple auctioneers (as at Peterhead and Grimsby).

Fish handling logistics will favour multi-chambered, temperature controlled premises suited to a range of uses. Flexible use will allow port operators to accommodate changing market conditions and fashions, and extend the useful life of the building without incurring high additional costs. Smaller ports, and those constrained by the availability of space, will have fewer options open to them, but will tend to compete effectively through specialisation (prime fish for the catering sector, live shellfish, air freighted fish, shorter distance distribution). Through incorporating the use of various forms of IT to link with other ports, and to link with customers (hub systems, advance supplies information, contract sales, internet trading, forward trading) small ports will develop networks that offer a large number of services to buyers that tend to overcome size constraints.

4.7 Funding

Under current systems of public subsidy, a degree of head to head competition between ports will tend to encourage over-capitalisation in facilities. Funding is based on economic appraisal systems and decision-making structures that do not adequately penalise over-optimistic projections of future throughput, particularly where they are based on capturing trade from other ports using exactly the same arguments for their own infrastructure development proposals. If, as seems quite feasible, public funding of such facilities is much reduced, then port infrastructure development will be primarily constrained by the extent of the financial support for any one proposal emanating from the processors and merchants using a particular port. This is likely to constrain moves to over-capitalisation, and encourage more market oriented port developments. Those ports that restructure first may capture the business of the larger wholesale distributors, since they, like the multiples, would rather source from a limited number of known sites. This will apply to the supply to the top end of the market only; there is little benefit to UK producers in seeking to supply medium quality product to bulk processors when they are in a position to supply product well above such basic specifications.

5 Threats and opportunities to auctions and ports

5.1 Summary

There are a number of clear break points that can be identified from the foregoing. These are points at which a decision to go one way or another way dramatically affects the structure and operation of the industry thereafter, for good or bad. These may be split into two groups – those of critical importance, and those of significance but more minor impact.

Critical threats and opportunities:

- Fishery management imbalances undermine structural change
- Failure to auction fish by absolute weight will undermine the role of auction sales
- Price will provide the greatest incentive to quality improvements in landed fish
- Codes of Practice must be established and enforced
- Efficiency improvements (cost savings) in the post-harvest sector will result in wholesaler / processor casualties
- Failure to adopt transparent auction systems will encourage the use of sale by direct negotiation
- Smaller ports have the flexibility to go it alone on quality and traceability
- The medium to long-term possibility of a dismantling of the system of relative stability could offer British ports additional strategic market opportunities

Threats and opportunities of significant but more minor impact:

- Strategies to out-manoeuvre other UK ports will attract public sector censure, and reduced public sector support for capital projects
- Inability to define fish quality for remote buyers will cause the demise of smaller auctions
- An active role by the Producer Organisations in the marketing of members' catch is required
- Failure to adopt transparent sales systems will result in further industry concentration around large ports
- Inability to deliver the traceability that the market requires will encourage UK and continental buyers to look elsewhere for product
- Those selling fish to continental markets will benefit from the use of electronic sales systems

5.2 Discussion

5.2.1 Fishery management imbalances undermine structural change

The continuing inability of the industry and government to curtail over-quota landing (and enforce EU marketing regulations) in the medium term will mean that any moves towards transparency in the first hand trading of fish will be strongly resisted. The consequences of not dealing with illegal landings effectively mean that other structural changes within the industry as a whole will be blocked – to the long-term detriment of the industry. Even the short-term continuation of this imbalance has a major knock-on effect with regard to the ability of the UK industry to remain competitive within Europe, undermining both local sourcing of raw material, and efforts to attract more landings to UK ports. Almost all other structural change with regard to the marketing of UK fish is dependent on this issue being resolved.

5.2.2 Failure to auction fish by absolute weight will undermine the role of auction sales

Traditionally in Scotland fish has been auctioned on the basis of unit container, rather than by absolute weight. Unit containers are assumed to represent a certain weight of fish – which they invariably do – but that weight differs from market to market, and from species to species, and is only fully comprehensible to regular market users. This basic system has been further complicated by the widespread practice of over-filling boxes – a practice traditionally used to ensure a "generous weight", and more recently as a means of "stretching" quota entitlement. This practice is one of the more obvious barriers to market transparency. Some UK markets, such as Plymouth where high value species are offered for sale, are already sorting and grading fish by absolute weight (the ruling system on the continent). Sales take place with bids made on the basis of price per kilo of fish, to the satisfaction of all players on the market. On the basis that market demands for transparency are growing, failure to remove this fundamental obstacle to the sale of fish will increasingly see the UK auction market circumvented. This will have a major impact on the provision of port infrastructure and the way that the industry is organised.

5.2.3 Price will provide the greatest incentive to quality improvements in landed fish

There is widespread reference within the industry to the fact that, in general, there has been a marked improvement in the quality of UK landings through improved handling and icing of fish. The catching sector is now better informed regarding slower degradation of product through good practice on-board. There remain marked regional differences, however, as well as between individual vessels, and overall quality lags behind market requirements.

There will be an inevitable shake-out in the post-harvest sub-sectors of the industry. This is not just the expectation that restructuring of the wholesaler and processing sub-sectors will occur as the result of worsening economic conditions impacting on particular categories of business, but that such change is a pre-condition of necessary quality improvements within the industry. Irrespective of the way that the first hand sale of fresh fish is conducted, if the prices paid to vessels do not provide sufficient incentive to skippers to change operating practices, any other changes elsewhere in the industry will be of a cosmetic nature only. Many of these changes are, however, already being driven by the retail and catering sector.

The result is that the remaining large-scale processors, due to quality standards not being met, will not use certain auction markets. Those auctions that do reach the required standards will be used as a supply top-up source by the remaining large processors rather than their major buying channel. This has significance in respect to how a port develops and implements a strategic marketing plan – over-reliance on the business of larger processors may not be cost-effective.

5.2.4 Codes of Practice must be established and enforced

While all of the major ports have adopted Codes of Practice for the market area, these rules are often relegated to a sign on a wall; are ignored by many port users; and are not enforced by port managers.

The practices of eating, drinking, smoking, spiting and walking on boxes remain widespread in UK auction markets. While the wearing of white coats may appear irrelevant, particularly when the white coat used every morning is not washed regularly, it is a measure that can be enforced, with non-conformists being immediately recognisable. It also creates a positive image that sends out the correct signal to those considering using that auction for supplies.

A lack of enforcement is often symptomatic of ports where there are a number of fish selling companies involved in running the auction. The party responsible for cleaning the auction effectively leaves the market operators to conduct their business as they will, only cleaning up the result at the end of the market. An agreement is required between fish selling companies operating the auction that those buyers not adhering to the Code of Practice in a port will not be sold fish. Successes in tackling this problem include Plymouth, where one company is responsible for the auction. It has tightly enforced the code of practice, making it unpopular with some users for a time, but the result is now effectively a more hygienic auction.

5.2.5 Efficiency improvements in post-harvest sector will result in wholesaler / processor casualties

The multiple retailers are unwilling to pass on price increases to consumers in what is an emerging market development for them. Increased payments to producers will therefore have to come from the achievement of efficiencies in the post-harvest sector. Combined with the imposition of increased wastewater charges, it is very likely that many smaller processors will be forced out of business, and that some of the more inefficient medium and larger sized processors will follow suit. Given the difficult year that most processors are currently experiencing, low financial reserves will also inevitably take their toll as costs are increased. Similarly, wholesalers will find themselves under pressure from trading partners in the UK and on the continent to cut margins, or face the loss of business to more efficient wholesalers (in the UK or further afield). This will have greatest impact on smaller operators, forcing some out of business, forcing some into the hands of larger wholesalers or wholesaler networks, or forcing some to change the nature of their businesses - servicing higher margin markets in fish distribution, inspection, grading, etc..

The auction will effectively have a smaller number of customers (buyers), but those remaining will have increased buying power. The influence of buyers on market conditions and practices is expected to increase with this increase in buying power.

5.2.6 Failure to adopt transparent auction systems will encourage sale by contract

The majority of operators at port market level (auctioneers and market wholesalers) agree that some form and degree of electronic trading in fish is all but inevitable on at least the larger port markets. Yet whilst there is evident interest in the technology involved in such systems, and in the cost and competitive dimensions of the introduction of such systems, the lack of industry consensus as to how such technology is to be introduced continues to hold back the adoption of such systems. Whilst this is going on, there is a marked increase in the amount of fish that is sold direct from boat to processor / wholesaler. This trend is likely to continue as long as over-quota landings remain a significant part of overall supplies, and as long as direct supplies are seen as a more cost-effective mechanism than auction sales for the distribution of such fish. Until such time as auction sales are visibly more transparent, predictable and seen as providing value for money from the percentage commission taken, it is likely that the proportion of fish sold by contract will increase. The basis for investment in large port markets will become more and more tenuous, and pressure to move to a system of more direct charges for the use of market premises and services will increase.

5.2.7 Smaller ports have the flexibility to go it alone on quality and traceability

The small and medium sized UK fishing ports support landings from a wide range of fishing vessels, from inshore boats to larger day boats, from 3 day trippers to 12 day trippers. Yet their very size makes it considerably easier for them, relative to larger ports, to establish consensus for the strategic management of port and industry development. In addition, the costs of change can be substantially lower than for larger ports, providing less of a barrier to private sector financing initiatives. Combined

with increasing demand for prime quality fish and the ability of port operators, merchants, packers and processors to guarantee traceability within a small fleet operation, it is possible to foresee smaller ports being able to respond positively to a number of developing market trends. Focus on quality and traceability fits in well with a small boat fleet, with tourism and recreational interests, and with the limited space constraints of many such smaller ports. In this, smaller ports are well placed to have a competitive advantage over larger ports.

5.2.8 The medium to long-term possibility of a dismantling of the system of relative stability could offer British ports additional strategic market opportunities

It is unlikely that the concept of relative stability will be dismantled at the end of 2002, given the almost unanimous support for its maintenance. And yet it is quite plausible that between 2003 and 2009 the continued upholding of this concept will be undermined by the dynamics already evident within Europe's fishery sector. Already the ownership of a vessel is becoming rather less important than the quota such a vessel has legal entitlement to. If parity can be established with regard to different systems of entitlement in use under different national regimes, then a breakdown in relative stability would be inevitable. Under such circumstances, British ports would be particularly well placed to re-enforce the logic of vessels fishing to the west of the British Isles basing themselves at British ports. The foundations of the infrastructure that would be necessary to underpin such a strategy are already being put in place, but there seems little interest in streamlining service provision and logistical support for such a development.

5.2.9 Strategies to out-manoeuvre other UK ports will attract public sector censure

Inability to unite different parts of the industry in a common strategy, both at national and local levels, is likely to result in further under-performance of the fishery sector as a whole, and to undermine further calls for public support to the sector. To date the industry seems to have been unable to come up with infrastructure designs and modifications that represent any more than re-styling of existing structures and systems of operation. Just a few years after modification or restructuring has been completed, it often becomes apparent that the facilities no longer offer any comparative advantage to that port. For example the move towards insulated markets is now being superseded by a requirement for full temperature control.

Further improvements to port infrastructure may not be supported by central funding sources as the local need for improvements to a particular port is dissipated at regional and national levels, particularly when that port has already recently received funding for improvements. Applications have for the most part avoided censure from funding bodies as they are judged on an individual basis. The wide variety of different funds that port infrastructure improvements qualify for has created a smoke screen for duplicated developments within a region. An Enterprise Company's role is to assist individual applicants in their success in applying for funds rather than in their taking a strategic view of the developments themselves within a regional context. This opportunity has, however, been a temporary one; ports may experience more applications being rejected as the same names appear in front of fund administrators again and European fisheries funding becomes increasingly integrated.

Funding for ports is a highly sensitive issue politically. Local Authorities have avoided strategic approaches for fear of being seen to favour one port over another. The reaction to the government's designated ports scheme suggests that this concern is justified.

If the status quo were maintained, there would be many losers amongst the small and medium sized ports. Interestingly, those smaller ports that will show themselves able to attract private funding for radical and strategic developments under such circumstances are likely to gain particular advantage in the quality rather than volume end of the market.

5.2.10 Inability to define fish quality for remote buyers will cause the demise of smaller auctions

It is debatable as to whether or not the small size of an auction makes it an inappropriate mechanism for selling fish. It has been suggested that the use of electronic linkage to other markets or to a wider range of buyers would overcome the disadvantages of small scale and limited buyer numbers. This is all well and good, but this would only become effective if it were possible to define product quality to the satisfaction of a distant buyer. For the present this can only be achieved on the basis of a combination of phone contact and reciprocal trust, most commonly based on long-term trade association. It is not impossible to conceive of consistent quality grading of product, particularly at smaller ports, but the industry appears very resistant to this concept. A failure to introduce such systems will inevitably undermine the future viability of smaller auctions. This may ultimately undermine the very viability of some ports as fishing ports. On the other hand, some may opt to take the route outlined in 8.2.6 above, concentrating rather on direct selling systems.

5.2.11 An active role by the Producer Organisations in the marketing of members' catch is required

With the establishment of the Producer Organisations as managers of vessel quota there also came a requirement to market the fish landed by its members in the most effective manner. To a great extent this PO role has been ignored in the UK. Only the largest, the SFO, has made substantial efforts to involve itself in post-harvest activity through direct trading agreements and vertical integration. While Producer Organisations vary enormously in management structure, scale and available resources, they are obliged to comply with the EU regulations stating their responsibilities, including the marketing of members' catch.

Marketing efforts can take many forms including the co-ordination of landings to avoid local over-supply; the negotiation of direct sales agreements; liaison with port managers and sales agents; the instigation of quality schemes; etc.. Through discussion with other port market users it will become more apparent what suite of marketing measures will be the most effective and financially rewarding for a POs members. As TACs are cut for some stocks, maximising the potential value of quota species will become a priority. Those POs able to provide evidence of successful marketing activity are more likely to achieve this, and more likely to increase their membership as a result.

Closer co-operation with port managers and port users will be mutually beneficial as all parties can develop compatible strategies based on agreement rather than guesswork. An example of this is the pilot scheme being implemented in Peterhead by North East of Scotland PO, where some of its members are testing improved equipment for the weighing and grading of their catches at sea. This scheme links well with the efforts of Peterhead market to address the overfilling of boxes.

5.2.12 Failure to adopt transparent sales systems results in the industry concentrating at large ports

Failure to encourage more transparent sales systems will work to the advantage of large volume ports, and to the disadvantage of those smaller ports operating auction systems. It will also undermine the development of packing and processing business around smaller ports. This will benefit those segments of the market using medium quality fish (largely limited to UK domestic volume trade in cod, haddock and plaice), but will adversely affect a ports' ability to supply more quality conscious markets (upper ranges of multiple and catering markets, and continental markets). In the longer term this will lead to under-performance of the industry relative to continental competitors, and restrict the larger industry players to supplying the UK domestic market only. It may also have the unintended effect of hastening the development of vertically integrated high quality supply chains, linking smaller scale operators from smaller ports directly with quality conscious multiples, catering distributors and specialists traders.

5.2.13 Inability to deliver the traceability that the market requires will encourage UK and continental buyers to look elsewhere for product

A combination of the UK Food Act, market forces and good practice has brought about widespread improvement in the application of quality assurance within the fish processing, distribution, catering and retail sectors. Increasing pressure to control and reduce the risks associated with supplying a highly perishable food product to consumers is encouraging traceability of product further back through the supply chain to, at a minimum, the time and place at which the raw material was harvested. This level of traceability is unwelcome by those handling the whole fresh product. This is primarily on the basis of being both unnecessarily cumbersome and costly, but other factors also militate against such transparency.

Where risk management becomes critical - in regard to food safety scares and in ensuring maximum shelf-life – the quest for traceability will force processors, caterers and multiples to source from fisheries that comply with such requirements. For the present such fisheries are to be found mainly outside the UK, where even the costs of air shipment have been accommodated in the pursuit of quality fish of known provenance. The quest for traceability will become even more important should the multiples seek to attach the characteristics of "caught from well managed fisheries" to the products they sell.

5.2.14 Increased benefits using electronic sales systems for fish destined for continental markets

There has been enormous growth in the supply of high value and quality live and fresh fish products to continental markets – notably Spain and France, but also Belgium and Holland, and increasingly Italy. Much of this business has become regularised, and the incidence of complaints about payment defaults and arguments about quality is much reduced. Yet the risks attaching to such trade remain high – particularly with product being placed on continental auction markets – and many are only learning through trial and error. The risks are generally held in control through the extensive use of the telephone, recruitment of staff with good foreign language capabilities, and meetings with clients at trade shows and at their respective premises. But there is also limited evidence of the use of e-mail and internet facilities to reduce such risks (through establishment of contacts with Chambers of Commerce, credit agencies, and client lists, and the swapping of information on bad debts, etc.). Such electronic commerce and information exchange services, used effectively and strategically, can provide a low cost mechanism for extending client contact, and further reducing trade risk. Failure to make use of such facilities is likely in the medium term to put UK traders at a disadvantage with respect to their continental competitors.

6 Conclusions

6.1 Main findings

6.1.1 Providing the right service

Many port markets do not meet buyer requirements: The role of the port auction market as the focal point for the first-hand sale of fish is threatened. Current practices in the markets are failing to meet the needs of many buyers. These needs include continuity of supply, advance notice of supply, narrow and rigorous specification of product (species, size, weight, quality), adherence to appropriate codes of practice (e.g. to allow for traceability) and transparency of market operation. In many sub-sectors of the industry, most notably in the white fish sector, this has encouraged traders and processors to seek an increasing proportion of their supplies from outside the UK and to make more direct supply arrangements with vessel owners and their agents.

Smaller markets suffer from a lack of buyer competition: Vessel owners and skippers dissatisfied with the returns available for fish sold through the markets in the ports of landing are increasingly electing to consign their product to another market. Consignment is generally to a larger market, where a combination of specialisation and market depth increase competition and thus the likelihood of returning a "fair" market price for their catch.

6.1.2 Fleet behaviour

The above points are of relevance to:

- the larger white-fish trawlers, many of whom are willing to enter into long-term direct relationships with processors,
- the pelagic industry, where the incidence of direct landings to Norway, Denmark and the Netherlands has been on the increase,
- sections of the flat fish sector, where a significant proportion of landings find their way onto Dutch and Belgian port markets or into Dutch or Belgian processors,
- the so-called "flag-boats" (mainly Spanish and Dutch), whose owners consign fish to continental markets, and
- the many foreign vessels that land to UK ports, but which consign to home markets – a category including French deep water fishing vessels, Dutch and Belgian beamers, and Spanish trawlers.

6.1.3 Consequential Impacts

The consequences of these trends are significant:

For the supply-side

- Existing large volume markets are likely to remain attractive to the larger suppliers of wet fish, in particular round fish from large vessels,
- Smaller vessel operators will react positively to local port market specialisation, and to markets / ports locking into electronic information exchange and trading systems that offer access to more buyers and strengthen the competitive positions of such ports.

For the buyer side

- Major processors seeking large-volume supplies will continue to rely on third country sources of fresh and frozen fish to ensure continuity and consistency
- Off-market sales are likely to increase and in a some ports become the most significant means of first hand sales because they facilitate a more direct and low cost match between buyer requirements and available supplies.
- Some specialist sub-sectors of the industry may adopt the use of linked electronic trading as a means of marketing supplies from a variety of landing places to a dispersed body of buyers – nephrops, prime fish, some flat fish.

For the port market side

- Larger port markets are likely to come under increasing competitive pressure from those smaller markets that have been able to meet buyer requirements through species / product specialisation, product quality / traceability, and through the establishment of increased buyer competition (notably flat fish, but also prime round fish and shellfish).
- Some ports are aiming to increase buyer depth by linking electronically into continental auction networks that will force them to improve grading reliability, handling practices and traceability.
- The proportion of fish passing through the auction in British ports is likely to decline over the next decade unless auction practices can be rapidly and substantially improved.
- There will be many commercial incentives for the establishment of strategic groupings and alliances of ports – by selling system, by geography, by species, by fishery and by the degree to which ports complement each other.

6.2 General conclusions

6.2.1 Industry wide impacts

- The trading of fish is increasingly demand-driven and the industry has been slow to adapt to this trend.
- Major requirements from retailers are for

  improved traceability

  consistency of supply

  more reliable quality description.

- The move away from the market towards direct trading between boat owners and processors in partnership relationships, a development which is being encouraged by multiple retailers, will be extended by processors into other market sectors if markets are unable to meet the requirements of quality consistency and traceability.
- Constantly changing industry dynamics suggest a range of selling systems should be catered for by port managers – flexibility is necessary as in certain market

conditions auctions will be favoured, whilst at other times direct sales will be favoured.

6.2.2 Future rationalisation of the supply chain

Future rationalisation of the supply chain will impact on all components of the chain. Some changes have already been implemented, under the influence of legislation and market forces, but many more changes can already be foreseen. The following is an indicative list of such changes:

- Catchers – already extensive, but on-going with a focus on quality rather than volume.
- Agents – increased use of advanced landing information, strengthening of direct selling capabilities, and increased provision of sorting, grading and weighing services.
- Market operators and support services (inspection, quality assessment, etc.) – more diverse portfolio of responsibilities, focus on quality and enforcement of codes of practice, with opportunities for contracting out services to existing or new industry structures (for example electronic auctions and data exchange).
- Buyers & wholesalers / distributors – forced consolidation due to increasing processor concentration and increased direct trading with processors and larger merchants, but with new opportunities to provide higher qualities of service to niche markets.
- Processors – shakedown with focus on quality, and achievement of efficiencies through scale and improved raw material sourcing, in part through rationalisation of the number of suppliers used and in part through stronger links with boats and their agents.
- Inland wholesale markets – further decline as traders focus on specialist off-market catering supply services and the handling of fresh and frozen imports for retail and catering trades.
- Retailers – multiples increase market share and bring supply chain efficiencies.
- Caterers – growing market, but will expect improved quality and consistency.
- Consumers – multiples will promote consumption of fish, but industry must improve standards, introduce more convenience products, promote natural and sustainable characteristics of fish and fishing, and promote diversification away from sole focus on a few core UK fish species.

6.2.3 Characteristics of different first hand sales methods

Whilst it is clear that the use of shout auctions continues to constitute the main first hand sales method employed in the UK industry, a range of other methods are employed to a lesser extent. In addition, a number of evolving methods, mainly involving electronic linkages, may be employed in the future.

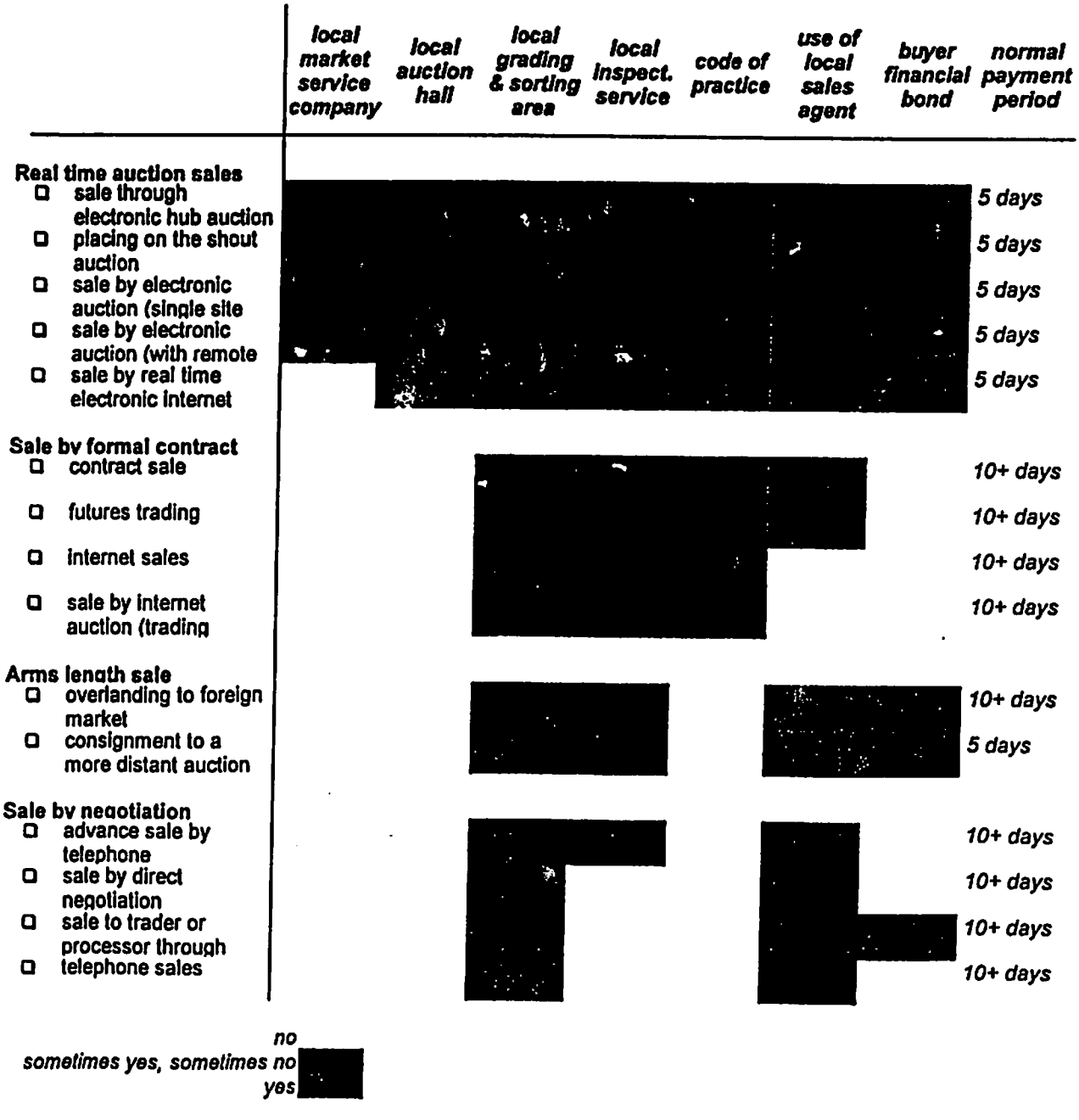
Each of these sales methods is associated with different calls on the provision of port services. For example a traditional shout auction requires a physical place where fish can be laid out, and sellers and buyers can meet. By contrast a telephone sale need not involve any such fixed infrastructure, and can be transacted by the simple transfer of fish from the vessel to the buyers transport.

Similarly, for most auctions buyers are required to place a financial bond with the market or with each fish salesman before they can buy off the market. For telephone sales, it is appropriate for the salesman to institute a credit check on a new buyer; but no specific bond is normally required.

When it comes to the use of more complex electronically mediated trades, the trade may be completed from one computer to another, or even from the wheelhouse of the fishing vessel to a trader in Marseilles, for example. Nevertheless, the physical service requirements associated with the trade may in fact be very similar to those required for a traditional shout auction transaction.

In Table 5 we have constructed a simple matrix of the association between trading method and service provision. This matrix provides some interesting insights into port infrastructure provision, and some of the risks associated with the different trading methods.

Table 5 - Matrix showing interdependence between sales channel and market infrastructure



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[illegible]

[illegible]

For real time auction trading, whether operating a shout auction, an electronic auction, or a virtual auction based around a hub system, there is need for a local market service company. It is also generally appropriate that there should be a physical locus for the display of fish, and a locus for the sorting and grading of fish. In one form or another it is appropriate that the services of a local inspection service should be used to validate the specification of product (a task currently typically allocated to the Producer Organisations). In addition, the use of an agreed code of practice is recommended, there is need to use a local sales agent in one guise or another, and the bonding of buyers provides a necessary guarantee of solvency. In the UK full settlement of the transactions is normally achieved within 5 days, mediated by the selling agent, providing considerable financial benefit and security to the producer; in fact a level of security that cannot generally be achieved using any other sales route.

The matrix indicates that provision of the same basic infrastructures will support a wide range of real time auction systems. An investment intended to support one type of sales system can also be used to support other types of sales system in the future.

Moving down the columns to sales by formal contract, sales at arms length, and sale by negotiation, a number of physical and service infrastructures may be desirable though not essential in supporting such trades. Investment in sorting and grading facilities could well be seen to enhance the trading prospects of a port. Further, the use of sales agents is indicated in most forms of trade.

This form of analysis indicates that not all aspects of the trade should be seen in terms of black and white, provision or no provision. There is room for considerable flexibility, and the overall image and presentation of a port's trading capacity can be relatively easily enhanced by providing key physical and institutional facilities that support flexibility whilst not compromising revenue streams. This may be achieved in the form of flexible market premises, whether they are used as a market facility for sorting and grading, or for auction sales. In either case it remains reasonable to charge for the service.

6.3 Specific conclusions

6.3.1 Sector management

- Fisheries management and control measures are a constraint to improved marketing systems and often conflict with them.
- There is lack of co-operation between sectors in the ports.
- There is lack of effective representation of sectors.
- Strategic planning is greatly assisted where a regional identity (and pride) helps facilitate agreement on standards, marketing, investment etc..
- Many Forums or Port User Groups are pre-occupied with short-term minor issues and not strategic planning.
- It is acknowledged that PO's need to become much more directly involved in marketing their members' catches.
- There is broad opposition to EC proposals to subsidise direct sales (10%).
- There is need to clarify and improve the legislation relating to hygiene and Food Safety and powers of enforcement.
- There is a lack of consultation by Regulators with the grass-roots at early stages of policy formulation (though this is being partly addressed by the pro-active role of the Industry Forum Legislation Working Group.

6.3.2 The auction

- The UK auction system is losing out both to auctions on the continent and alternative selling methods such as direct selling.
- The proportion of fish passing through the auction in British ports is likely to decline over the next decade.
- There is danger that any significant growth in direct sales will undermine the auction sale to the detriment of producers and small merchants/processors.
- Auctions at larger fishing ports will continue to dominate sales, but even these will decline as direct sales increase.
- The auctions in small ports, particularly those in isolated areas or landing certain species, may benefit from linking to larger auctions through electronic systems.
- The auction acts as a payment guarantee mechanism with virtually immediate payment for catchers. Alternative selling systems have difficulty in matching this service.
- The auction system acts as a mechanism to define a "fair" market price for fish in larger ports. This information may then be used by operators who do not support the auction with their own trade, and who therefore benefit from this information at no cost to themselves.

6.3.3 Port facilities

- On balance there is over-capacity in ports markets.
- Conditions and facilities are improving to achieve common minimum hygiene requirements; nevertheless, there is need for the upgrading of ports' physical infrastructures, including temperature controls.
- Current strategic planning is largely confined to capital plans for physical infrastructures rather than reform of marketing and commercial structures in response to market need.
- New facilities need to be justified on a strategic basis, and on a regional and national, rather than local, basis, as many recent developments have had the effect of simply leap-frogging local competitors, without satisfying longer term needs.
- Port managers need to develop strategic management plans and aim to "either be first or be different" by reaching recognised milestones (linked auctions, temperature controlled areas) first or diversifying into niche markets.
- Consultation with all port and market users should be increased, and their enhanced participation in decision-making processes encouraged.
- The linkage between port charges (of dock dues, fish dues etc) and the costs associated with the provision of specific infrastructures and services has become both tenuous and problematic.

6.3.4 Quality

- Fish quality may have improved in the UK, but there is considerable room for improvement. Handling improvements at every stage in the supply chain are required.

- There is need for better standards of size and quality grading. Weighing and reliable standard grading are positive steps, putting an end to over filled boxes and the use of quality grades that are too broad for the establishment of buyer confidence.
- There is need to improve and demonstrate price premiums for meeting market requirements for quality, supply scheduling, traceability, size grading, etc., as a means to promoting change.
- Ports should target temperature control as an important move towards maintaining quality.
- Exacting Codes of Practice should be developed for each port, and enforced at each port market.
- There exists a requirement for greater training in the ports sector, specifically with; Food Safety, Hygiene, Quality Control, Quality Assessment etc.

6.3.5 Information

- Information is used for competitive advantage at every step in the supply chain. Many operators are, therefore, resisting increasing information flow that would result in a more transparent process.
- The auction system acts as a barrier to information flow, benefiting agents and buyers with local knowledge, but preventing catchers getting information on customer requirements.
- The flow of information in most port markets is poor due to low levels of co-operation.
- Information between catcher and agent must improve as markets are more closely targeted and the product is more highly valued.
- There is need for improvement in the provision of forward information of supplies.
- Buyers will demand more product information and want Hazard and Critical Control Point (HACCP) systems or other quality systems in markets and handling.
- Retailers and consumers will demand more information, including tighter product specifications and sustainability labelling.
- Industry should closely examine the potential of IT in sales and communications (not just for fish).

7 Recommendations

7.1 Key recommendations

Below we outline key recommendations, and describe how these might be taken forward by the industry in terms of action.

Recommendation 1: ***Above all, industry members at the port level need to work co-operatively and strategically.***

The provision of port market services in UK ports is facing a range of pressures, due to uncertainty on the supply side and pressures for improved quality on the demand side. While retailers and boat owners both approach their section of the supply chain strategically, between them in the port markets there is less evidence of a strategic response to these changes. The underlying industry reasons for this lack of strategic thinking are the atomised structure of enterprises in the ports (preventing co-operative responses) and continuing commitment of the industry to anachronistic practices. A failure to address these issues strategically will lead to a progressive decline in the role of port infrastructures in fish marketing in some ports.

Recommendations 2: ***The industry should recognise and respond strategically to medium term and underlying changes underway in the catching, trading and processing sub-sectors of the industry.***

The UK fish industry will continue to undergo restructuring. The main wave of subsidised fleet restructuring (decommissioning) has now passed, but the rationalisation (under regulatory and commercial pressure) of both the fleet and the post-harvest sectors is only now beginning. This wave is likely to be completed over a much shorter period than has been the case with recent fleet changes, in a period of approximately five years. There are likely to be substantial changes in the allocation of the rights of access to fishery resources, with more restrictive quota entitlement linked to more regionally oriented management regimes (with impact on the economics of vessel and fleet operations). These latter changes are likely to take at least ten years and will be gradual.

Recommendation 3: ***Port managers should develop a strategy specific to each individual port that focuses on the needs of customers - those who deal directly with the port market and those further down the supply chain with linkage to first hand sale.***

Caught in the middle of these changes are the fishing ports and the port markets. The absence of long-term planning combined with strong inter-port rivalries is evident, with ports and port markets inadequately structured for the medium and long-term future. The ports as a whole appear to have no strategic picture of the future or of how different ports should deal with it. Ports have been reactive rather than strategic in their development.

7.2 A programme for action

In the previous chapters we have distilled the various dynamics underway within the industry, and indicated their likely impact on port markets in the future. Below we examine the actions that various industry members might consider taking to deal with the future.

7.2.1 Responding to opportunities and threats

In drawing up individual port strategies, the following predicted shifts in industry structure and operation will need to be addressed:

- Where scale factors permit and where operating economics allow, temperature controlled sorting and grading areas will be provided for port users, whether or not they sell product across the auction.

- Most ports already specialise in trading in a particular mix of species or in servicing a particular mix of fleet, but market conditions are likely to encourage further specialisation in customer base.

- Strategic alliances are likely to be established between smaller ports seeking strength in numbers, ports providing complementary services (species range), the co-ordination of services provided to clients, and the use of linked electronic trading systems (particularly in smaller ports).

- Where continental ports dominate in the sale, processing and distribution of particular species groups, UK suppliers will continue to consign fish to these markets, or establish electronic trading links to such markets.

- Other than for nephrops, auctions are likely to play a minimal role in the sale of shellfish.

- Efforts to reduce the complexities of sourcing nephrops for processing and export will encourage the establishment of electronic trading or auctioning systems linking the principal ports of landing.

- Electronic information exchange and electronic trading will play an increasing role in the sale of large volume pelagic species.

- As a means of achieving the efficiency gains that standard and transparent practices can deliver and most notably applicable in those ports where the level of cross-industry co-operation is low:

  - consideration should be given to transferring ownership and operation of the port market and ancillary facilities to an independent port market or auction company owned outright by a single body, as is commonly the case with continental ports; alternatively it may be owned by a consortium of port users and statutory bodies (possibly more appropriate to UK practices);

  - under such arrangements, the fish selling companies would contract with a single service company for the sorting, grading, and weighing and specifying of fish (whether for direct or auction sale) and, if required, for the auctioning of such fish as they wish to put across an auction floor; in some cases the fish selling companies themselves might provide such services under contract to the market operator.

7.2.2 Developing a strategy for different ports

Currently there seems little likelihood that ports will seek to co-operate in the establishment of an integrated national or even regional port strategy. Instead they will seek to establish their own position in the wider market. Nevertheless, the core of such actions will need to be the development of individual port development strategies.

At present the prime movers in the development of such strategies are the harbour or port managers. In the future, much greater use will need to be made of port user committees in developing cross-industry support for such strategies. This will become all the more necessary as public finance for infrastructure improvements becomes tighter, and the industry will be expected to take greater responsibility for funding change using its own resources.

The contents of such a port strategy are out-lined below.

While each port has a unique market position and unique development problems facing it, thus requiring a strategy tailored to the individual port, a number of elements should be common to all. The move toward a demand-driven supply chain led by the highly public actions of multiples (but more realistically based on the growing need of catchers to capture greater value from the finite natural resources they exploit) has been highlighted as a fundamental change.

In the light of this, port managers should therefore:

- **Identify their direct customers**, including vessel owners, skippers, sales agents, buyers and processors.
- **Identify their customers' needs**, including those of more indirect customers further down the supply chain, beyond simply port market users.
- **Review existing business operations** and establish their future viability.
- From the above, set and **prioritise objectives** for the port market based on customer needs.

At the same time, managers should develop and install the following complementary systems:

- Internal and external **market information systems:**

  Internal: collection and strategic dissemination of data on volume and value of product passing through their market

  External: market intelligence and research from a number of sources, bought or commissioned, to inform decision-makers of the general market conditions and specific conditions at certain other ports

- **Quality systems**

  These should include a review of the market codes of practice, hygiene standards, weighing and grading practices, provision of forward landing information, staff training, and port facilities.

Key elements in developing any strategy will be:

- Gain broad consensus from port users that a strategy should be developed and establish mechanisms by which inputs from all port users can be accommodated and differences resolved.
- Identify which markets and market segments the port is best able to service and where it has, or might expect to develop, comparative advantage over other UK ports and over other European suppliers to those markets
- Decide how to deal with the matters of quality, product specification and traceability.
- Determine how best to meet customer needs and thus what part the port auction is likely to play in future operations of the port.
- Assess whether or not there is need for expansion or contraction of port market facilities.
- Identify the requirements for merchant and processor facilities within the port area, including facilities for grading and sorting fish.
- Assess if physical constraints or competing port development opportunities are likely to impinge on identified opportunities for port market facilities (flexible or dedicated facilities) and determine how to deal with these constraints.
- Identify what impact the call for tighter specification of product will have on sales systems employed.
- Identify whether or not remodelling of physical port infrastructure is required.
- Identify, where remodelling is indicated, whether or not it is economically justifiable and where the necessary financing can be raised.

- Determine if, after all this examination, the strategy is likely to ensure comparative advantage in a regional context, or if the competing strategies of nearby ports are likely to pose a real risk to such a strategy.

7.3 Recommended actions for port managers, port users, government and Seafish

Port Managers

- Prepare a detailed port development strategy with both a regional and national perspective
- Look further up the supply chain for guidance on customer requirements
- Encourage user participation in decision-making – promote an active port users' committee and such other working groups as strategy development and technical considerations dictate
- Maintain flexibility in facilities and facilities' management, including selling systems, to take advantage of market opportunities
- Identify the opportunities for establishing strategic alliances with other ports
- As a matter of priority explore the possibilities for financing the development costs of any strategy or strategy component
- Explore the options available for the sorting, grading and weighing of fish prior to first hand sale
- Develop rigorous codes of practice for market operation, emphasising and aiming for quality improvements
- Strictly implement these codes of practice
- Install or improve existing market information and quality systems
- Encourage a co-ordinated response to dealing with restructuring within the post-harvest sector
- Encourage a co-ordinated response to training and re-skilling to exploit new business opportunities in industry support services

Fish Sales agents

- Examine strategies for accelerating the adoption of fleet and market practices that deliver higher quality and value fish
- Develop strategies for widening the networks for sourcing fish from other ports.
- Embrace the adoption and deployment of IT and modern communications in meeting the information requirements of key clients and achieving operational economies
- Strengthen capacities for the direct trading of fish, including the development of relationships with key customers.
- Reduce or eliminate complications arising from both selling and buying on the same auction market

Producer Organisations

- Increase activity in marketing of members' catch in addition to managing their quota
- Liaise with market managers on catchers' behalf
- Actively participate in port user groups
- Encourage member co-operation in quality/grading initiatives
- Assist in better co-ordination of landings to avoid over-supply to the market
- If developing direct trading agreements, appraise port managers of this so that service provision and the modification of port development strategies can better reflect trade realities.

Port wholesalers

- Re-examine medium term viability in the light of projected restructuring within the post harvest sub-sector
- Identify ways to achieve greater business focus and specialisation, and how to improve the provision and delivery of services to existing and future customers
- Actively inform oneself of the practicalities of trading on electronic auctions (bidding directly, remotely and virtually)
- Target new markets – for example niche markets / the continent
- Consolidate business
- Improve the reporting of buyer requirements (tighter quality, grading and traceability) to market managers and catchers
- Promote to your customers your commitment to the above

Government

- Develop port facilities in co-operation with appropriate ports committees based on a national strategic ports programme
- Encourage local government agencies to develop regional strategic ports programmes for integration with national programme
- Review designated ports scheme, in particular the permitted landing times because landing delays cause degradation of product and handling quality at the quayside will decrease. Designation may in future be found to be unreasonably restrictive after the incentives to illegal operations largely disappear.
- Promote and support co-operation between all sectors, especially between the extreme ends of the supply chain – catchers and retailers
- Incorporate the requirement for explicit regional impact assessments in cost-benefit analyses for more strategic development

Seafish Industry Authority

- Work with industry on quality improvements
- Update codes of practice for markets and promote extensively – emphasising importance of temperature control
- Promote standardised weights and grading
- Promote increased port user participation and increased power for port user alliances
- Continue programme of market audits

Encourage innovation in operational practices on-board vessels

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Annexes

Annex 1: Listings of interviewees and those attending seminars

Annex 2: Telephone and field questionnaires

Annex 3: The geography of fish landings and product flows

Annex 4: Likely trends for the retailer, caterer and consumer sector

Annex 5: Estimates of auction throughput

Annex 6: Change and barriers to change

Annex 7: Exploration of what happens between now and 2010

Annex 1: Listings of interviewees and those attending seminars

People interviewed, face-to-face, during the course of the Port Markets Strategy Study

Shetland

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Martin Smith	Chief Executive	LHD Ltd	*	*	*								
John Goodlad	Chief Executive	Shetland Fishermen's Association	*										
Jim Henry	Fishery Development Officer	Shetland Islands Council					*						
Allan Wishart	Chief Executive	Lerwick Harbour Trust				*							
Arthur Williamson	Managing Director	L Williamson & Sheltie Seafoods							*	*			
John Simpson	Secretary	Shetland Fish Processors Association								*			
Craig Kensler	Professor	North Atlantic Fishery College										*	
Dominique Rommel	Lecturer and Researcher	North Atlantic Fishery College				*						*	
Morgan Goodlad	Principal	North Atlantic Fishery College								*		*	

Lochinver

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Derek Forrester	Harbour Development Manager	Highland Council				*	*						
Lee Macrae	Manager	Brescot	*	*									
Fraser McKenzie	Accountant	Euroscot	*	*									
	Fishery Officer	Scottish Fishery Protection					*						

Iain Lamont	Dep. Manager	Lohinver Fishselling Company	*	*								
Stuart Cooper	Fish Salesman	Lohinver Fishselling Company		*					*			
Scott Taylor	Buyer	Bannerman's							*			
Hugh McKenzie	Buyer		*					*				
Mrs Gudgeon	Local Manager	Penfro Peche	*	*								
Mr Gudgeon	Harbour Master	Lochinver Harbour				*						
David Mckay	Manager	Mckay Bros							*	*		
	lumper (Brescot & Euroscot)											
	B&B owner											
	Highland Council divers											

Mallaig

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Andy Race	Chief Executive	Andy Race (Mallaig)							*	*			
Noel Kenning	Owner	Kilkeel Enterprises	*	*									
Frank Stride	Fishery Officer	Scottish Fishery Protection Service					*						
Peter Hamling	Managing Director	Fastnet Highlands Ltd							*	*			
Michael Currie	commission agent & chair of harbour	Currie						*					
Robert Mcmillan	Harbour Master	Mallaig Harbour				*							
Willy John McLean	Skipper MV Alisa and Director	Mallaig Fishermen's Co-op	*	*									
Michael Camie	vessel agent and fish seller	George Walker Fishselling	*	*					*				
	Chairman	Mallaig Harbour Commissioners				*							
Norrie McLean	Manager	Youngs, Annan											
Gus Hare	Buyer	Youngs, Annan											

Hull

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
David Latus	Chairman	Hull Fish Merchants Assoc.							•	•			
Tim Cartwright-Taylor		Boydline	•	•									
Vic Morrow		Isberg		•	•								
Philip Amos		Simpsons							•	•			
Brian Patterson		Bluecrest							•	•			
Ken Wood		Bluecrest							•	•			
David Hussey	QC Consultant	Bluecrest							•	•			

Grimsby

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Frank Flear	Chief Exec	Grimsby Fish Dock Enterprises Ltd			•	•							
Martin Boyers	Chairman	Grimsby Fish Merchants Assoc							•				
Vaughan Dillon	Fish Buyer	Seachill							•	•			
Nigel Edwards	Quality manager	Seachill							•	•			
Graham Charlton	Process Director	Youngs							•	•			
	Chief buyer	Youngs							•	•			
Peter Tiffney	Managing Director	Fish Taste								•			
Kurt Christenson	Managing Director	Kurt Christensen	•	•	•								
Peter Darcey		Icebrit	•	•	•								
		Norbrit											

Brixham

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Malcolm Cooke	Manager	Brixham Trawler Agents	*	*	*								
Dave James	buyer	Iceberg						*					
David Newman	Director	Chas. Newman							*	*	*		
Nick Summersby	Buyer	Kingfisher							*	*			
Paul Labistour	Harbour Master	Brixham Harbour				*							
Clive Thomas	Chairman	Local Inshore Fishermen's Association	*										
Tom Twerley	skipper	MV Christinee	*										
Ian Browse	Director	Brixham Seafoods							*	*			
Nick Hindle	Manager	Brixham Seafoods							*	*			
Nigel Ward	Managing Director	Channel Seafoods							*	*	*		
	Transport												

Plymouth

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Alison Elvey	Project Co-ordinator	PESCA South West Ltd					*						
Simon Pascoe	External Funding & European Co-ordinator	Torquay Council					*						
David Pessel	Chief Executive	Plymouth Trawler Agents	*	*	*								
Jo Evans	Manager	S&J Fisheries							*	*	*		
Peter Bromley	Fish Market Manager	Sutton Harbour				*							
Alex Philip	Director	Philip & Langdon							*				
	market foreman	Plymouth Fish Market											

Fleetwood

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*

Peterhead

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Raymond Fraser	General Manager	Peterhead Fishermen Ltd.	*	*	*								
Ian Moir	Chief Exective	North East Enterprise					*						
Will Clarke	Chairman	Peterhead & Fraserburgh Fish Processors Association								*			
Ron Gilland	Chief Exective	North East of Scotland Fishermen's Organisation Ltd.	*										
James Brown	Manager	Caley Fisheries (Peterhead) Ltd.	*	*	*								
John Paterson	Chief Exective	Peterhead Harbour Trustees				*							
Bill Hazeldean	Chairman	Macrae Seafoods								*			

Multiples

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Chris Hodgson	Fresh Fish Buyer	ASDA											*
Andrew Pepper	Fish Controller	Tesco											*
Mike Hodgson	Fish Buyer	Sainsbury											*
Jeremy Langley	Assistant Fish Buyer	Waitrose											*
Waitrose (standing in for the													
Tim Hamer	Assistant Fish Buyer	Morrisons											*
Mike Ware	Trading Controller	Safeway											*
Andrew Mallison	Fish Buyer	Marks and Spencers											*

Northern Ireland

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*
Alan McCulla	Chief exec	ANIFPO	•									
Dick James	Chief exec	NIFPO	•									
Tom Brown	Assistant to chief exec	NIFPO	•									
Chris Warnock	Chief exec	NIFHA				•						
Jim Prentice	Fisheries Development	DANI					•					

Others

name	title	organisation	type of business									
			fishing	*agent*	*sales*	*port*	*gov*	*comm*	*merch*	*proc*	*transp*	*train*	*mult*

Attendees at the three regional seminars

York

Attendees

fish selling agents	
Dave Winspear	Alliance Fish Selling (Whitby) Ltd
Andrew Pearson	Alliance Fish Selling (Whitby) Ltd
fish producers	
T J Cartwright Taylor	Boyd Line
Andy Read	North Sea Fishermen's Organisation
processor / trader	
N Arthur Parrington	National Federation of Fish Friers
Martyn Boyers	Grimsby Fish Merchants / Federation of BWPFMA
Barrie Deas	NFFO
port facility managers	
D Young	Grimsby Fish Development Enterprise Ltd / British Ports Association
J B Eaton	Eyemouth Port Development
Bill Estill	Scarbourough Harbour
Keith Allen	Scarbourough Harbour
Alastair McFarlane	ABP Lowestoft
Callum Couper	ABP Fleetwood
Terry Houghton	WFDM Fleetwood
Jeremy Percy	Milford Fish Auction Ltd
Alan Hopper	Consultant to Hull Fish Market Group
Arthur Cook	Hull Fish Market Group
miscellaneous	
David Walls	Atlantic Bow (Communications) Ltd
John Tumilty	Seafish
Eleanor Nicholls	Seafish
Adrian Barrett	Seafish
Jan Buidderet	PEFA
Duncan Amos	Yorkshire Coast Fishing Forum
Don Welsh	Fleetwood Fish Forum

Seminar team

Mike Haines (Chair)	University of Wales, Aberystwyth
Crick Carleton	Nautilus Consultants Ltd
Ian Graham	University of Edinburgh School of Management
Alasdair Fairbum	Seafish
Maria Limonci	Seafish
Mike Myers	Seafish
John Tower	Seafish
Trevor Misson	Seafish

Inverness

Attendees

fish selling agents	
Edwin Garret	The Don Fishing Co. Ltd
Nicholas Garret	The Don Fishing Co. Ltd
John Penny	The Don Fishing Co. Ltd
Kenneth Thomson	Kinlochbervie Fish Selling Co. Ltd
Alistair Allan	Denholm Seafoods Ltd
Ross Dougal	Denholm Fishselling, Peterhead
P R Logue	Denholm Fishselling, Scrabster
Alexander Barr	United Fish Selling Ltd
fish producers	
Robert Stevenson	West of Scotland Fish Producer Organisation Ltd
Norman Bremner	Bremner Fishing
processor / trader	
Angus Hare	UKAFFP / Youngs Bluecrest
port facility managers	
John Paterson	Peterhead Harbour
Brian McCann	Fraserburgh Harbour
Robert MacMillan	Mallaig Harbour Authority
Barclay Braithwaite	Aberdeen Harbour Board
Pierre Bale	Scrabster Harbour Trust
Robert Burnett	Scrabster Harbour Trust
Neil Gudgeon	Highland Harbours
Jeremy Pritchard	North Shields Fish Quay Co. Ltd
local government	
Derek Forrester	Highland Council
Bob Massie	Highland Council
George Hamilton	Highland Council
Jim Knowles	Aberdeenshire Council
Ann Bell	Aberdeenshire Council
miscellaneous	
Michael MacIntosh	Highlands and Islands Enterprise (HIE)
David Walls	Atlantic Bow (Communications) Ltd
Gunilla Greig	Seafish
Gillian McLeod	Seafish
Dominique Rommel	North Atlantic Fisheries College

Seminar team

Paul Johnston (chair)	Aberdeenshire Council
Crick Carleton	Nautilus Consultants Ltd
Rod Cappell	Nautilus Consultants Ltd
Alastair Fairbairn	Seafish
Maria Limonci	Seafish
Mike Myers	Seafish
Trevor Misson	Seafish

Newcastle, Co. Down

Attendees

fish selling agents	
Gordon Weir	Kilkeel Fish Selling Co Ltd
Alex McLaren	TEFA Troon
fish producers	
Dick James	NIFPO
Tom Bryan-Brown	NIFPO
L Firvan	NIFPO
Alan McCulla	ANIFPO
J Arnett	ANIFPO
Howard Forsythe	ANIFPO
Hubert Annette	ANIFPO
Gerry Doyle	NIFHA / ANIFPO
processors / traders	
J Rooney	Rooney Fish Selling
Harold Nicholson	T H Nicholson Kilkeel
J Milligan	G Milligan and Sons Ltd
port facility managers	
Ann M Cunningham	NIFHA
Richard Coulter	NIFHA
Joe Martins	NIFHA
Gareth Russell	ABP Troon
local government	
Gerry Lavery	DANI
Jim Prentice	DANI
David Martin	DANI
Steve Cooper	Newry and Mourne District Council
Gail McEwen	Down District Council
miscellaneous	
Maria Jennings	Eastern Group Env. Health Committee.
Richard Banks	Consultant

Seminar team

M Andrews - Chair	Seafish/NIFHA (director)
C Carleton	Nautilus Consultants
R. Cappell	Nautilus Consultants
A. Fairbairn	Seafish
M Myers	Seafish
Ian Milligan	Seafish

Annex 2: Telephone and field questionnaires

Example of Questionnaire used in the field

(a similar questionnaire was produced for interviewing sales agents and port managers)

1 Basic data on buyer
A What are the main species you trade
B Volume and value of trade – turnover

2 Trade channels
What is your role in trading fish?
What channels are available?
What channels do you use to buy fish?
Why do you use one rather than another? What tactics do you use to buy fish?
For the channels that you use, how do you use channel a, b, c, etc?

3 Quality
How do you assess fish quality when trading fish? (what information do you use?)

4 Value
How do you assess a fair price when trading fish?

5 Attitudes to risk
What problems do you face in your business?
Quality –
Payment –
Mis-trust –
Under / over supply –
False information -

6 Information
What information, that is not currently available, would improve your business?
Forward landings/recent prices in region/landings to other ports

7 Suppliers/customers - Return to hard data
A How many people do you buy from?
B How many people do you regularly buy from?
C How many do you act as agent for?
D Who do you sell on to?
E Number of customers? Daily, core, irregular
F How do you make these connections? E.g. for contract sales (word of mouth/phone/head office)

8 Change
A What are the main changes that you see in the fish trade in the next ten years?
B What trends have you seen happening within the industry?
C Commissions – what rates are charged (typically) –have these changed recently?
D General level of commissions being paid within the market?

Port Case studies

Port Name:

Location: general area

Person(s) interviewed and number

1. Market and Services

Who owns the port?

Is there an auction?

Is market area: Size of market (m2):

Is it: Insulated? Temperature controlled?

Max number of boxes per day:

Average number of boxes per day:

When was the last major upgrade?

How much did it cost?

Landing dues (% of gross sales)

What was the turnover last year?

2. Market Users

No vessels over 10m regularly using port:

Landings (% by value) from 3 day trip or less

Landings (% by value) from over 3 day trip

Landings (% by value) from foreign vessels

Total 100%

Number of fish selling companies

No buyers regularly using port:

Large buyers (>£10,000 per week):

Medium buyers (£3,000 to £10,000 p w)

Small buyers (<£3,000 p w):

3. Main Landings (liveweight)*

Main species	Volume (t)	Value (£000)	Av. price /kg
	0	0	£0.00
	0	0	£0.00
	0	0	£0.00
	0	0	£0.00
	0	0	£0.00
Total (all species)	0	0	£0.00

*By UK vessels (MAFF and SOAEFD, 1997 statistics)

4. Source of Supplies

Fate of Landings

To local auction 0

Consigned 0

Direct/contract sales 0

Total = 100%

To the Auction

% from direct landings 0

% overlanded 0

Total = 100%

To local processing Industry

% from local auction 0

% from direct sales 0

% from other UK auction 0

% from imports 0

Total = 100%

Comments

Annex 3: The geography of fish landings and product flows

A3.1 Introduction

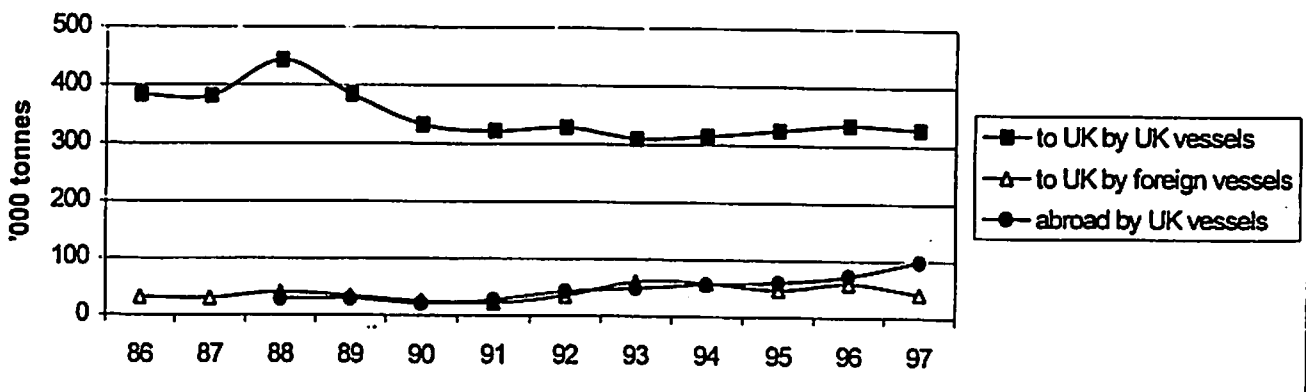
This section provides a general overview of the flow of fresh fish into and out of the UK, and the major trends caused by and affecting this flow. In later chapters statements are made, conclusions drawn and recommendations presented. These are based on official statistics, findings from research and fieldwork, as well as the consultants' knowledge and experiences.

There are many areas of the industry where only limited data are available. The two sectors benefiting from up to date information are the catching and retail consumer sectors; even here, however, inaccuracies exist, but where possible accepted statistical sources have been used to provide evidence for later statements.

A3.2 Major trends

Throughout the UK ports it was mentioned by most port users that domestic landings are falling (down 4.7 per cent by value from 1996 to 97), even if a particular port's share of those landings has increased. Demersal landings, accounting for 61 per cent of landings by value and 54.5 per cent by volume, are the most useful indicators for the purposes of this study, as the majority still go through the auction system (see Figure 1). In the pelagic sector the downturn is more dramatic, with 139,300 t landed at UK ports in 1997, compared to 169,500 in 1996 (down by 18 per cent). Shellfish landings are bucking this trend, showing year on year growth in terms of volume (135,500 t in 1997 compared to 131,600 in 1996) and value (£153 M compared to £148 M in1996), but there is concern that this growth is unsustainable. It is evident that there is a general trend toward less fish being landed to the UK, both by UK vessels and foreign vessels. Although this is a consequence of reductions in TACs, UK registered vessels are landing a greater proportion of their catch at foreign ports (up 13 per cent in 1997 from 1996 figures).

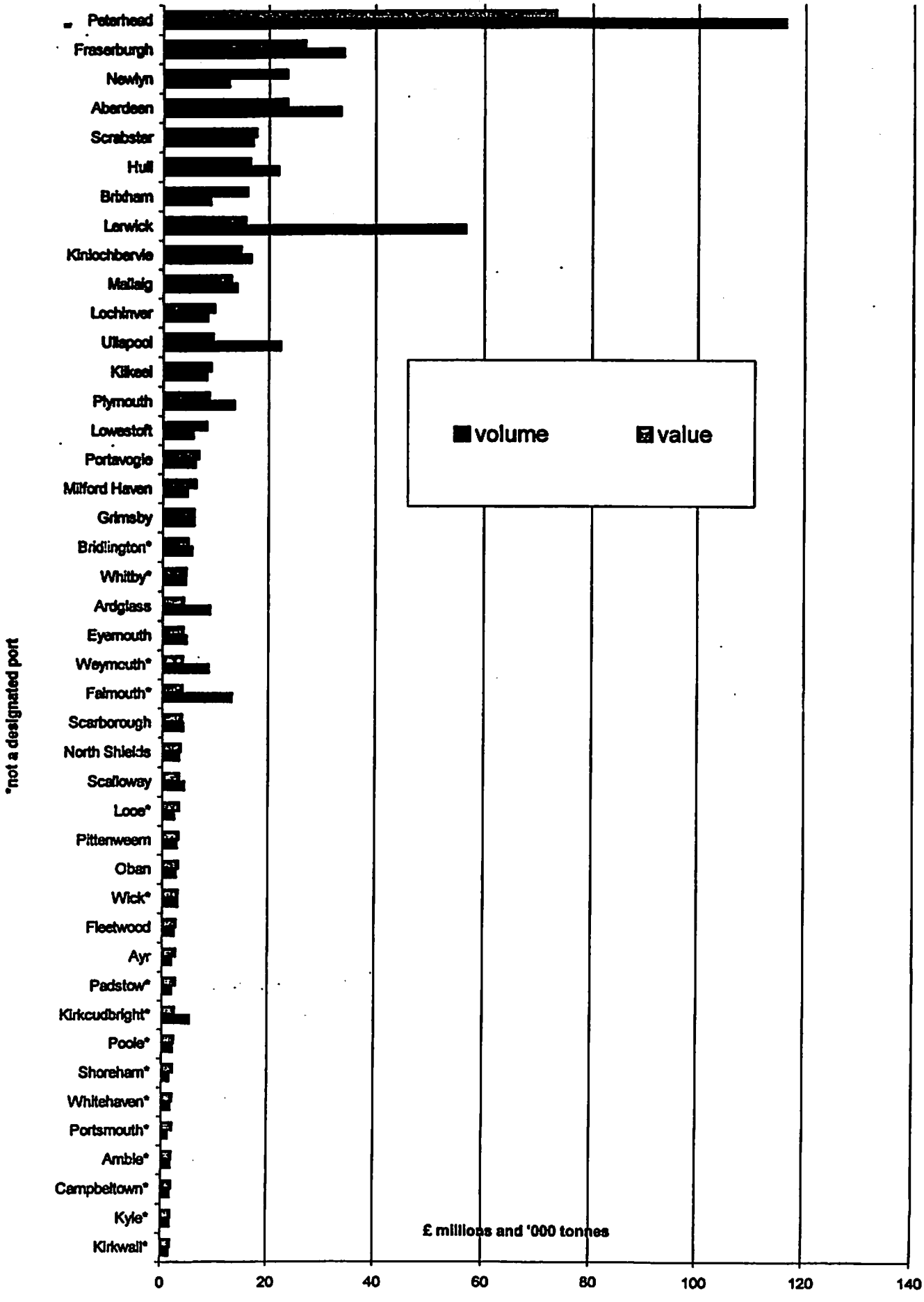
Figure 1: Demersal landings to the UK by UK vessels, foreign vessels and landings abroad by UK vessels



Source: MAFF

It is expected that 1998 figures will continue this pattern, but the impact is being softened by the current buoyant prices for whitefish. With the collapse of the Russian and Far Eastern markets, the same cannot be said for the pelagic sector. Figure 2 below shows the major ports for value and volume of landings of fresh and frozen fish in 1997. The influence of pelagic species is particularly obvious with the high volume figures relative to value seen at Peterhead, Lerwick, Ullapool and Falmouth. Peterhead had around three times the amount landed in comparison to the next largest port for value (Fraserburgh) and twice the amount in terms of volume (Lerwick) in1997.

Figure 2: Major Ports in 1997 - Volume and value of landings by UK vessels



Source: MAFF

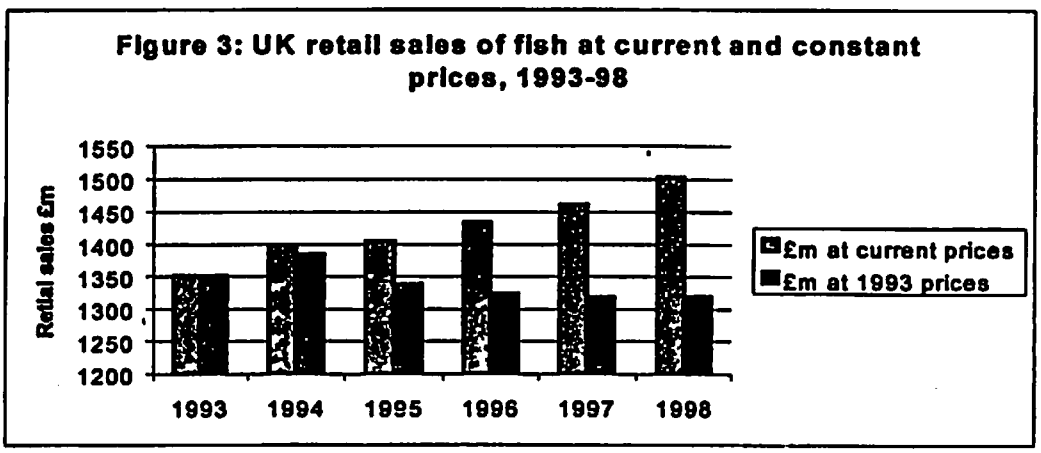
Newlyn lands high value fish such as sole, monks, megrim, hake and turbot, and in consequence features as the third largest port in value terms. The average price per ton for demersal species at Newlyn was £2,149 compared to £717 in Peterhead. Hull remains significant due to the inclusion of fresh fish landings by Icelandic and Faeroese vessels.

According to MAFF statistics, there has been a 12 per cent fall in total landings by UK vessels between 1988 and 1997 and a 17 per cent fall in the number of UK fishermen over the same period. The last figure supports comments made by several interviewees that vessels are going to sea with fewer hands on board.

These changes in the structure of the catching sector have been occurring within a climate of domestic consumption that has not altered significantly in the same period, other than the development of increasing market share for farmed salmon. Chapter 4 gives more detail on the retail, consumer and catering market and the implications for port markets.

Sales of fish have continued to rise, with a more significant increase in 1996 after the BSE scare hit beef sales hard. However, calculation of retail sales of fish using price constants from 1993 (Figure 3) shows a small overall decrease in sales.

Figure 3: UK retail sales of fish at current and constant prices, 1993-98



Source: adapted from MINTEL Market Intelligence 1998

The two most significant changes in sales of fish to the consumer are the growth of convenience goods such as ready meals (Table 1) and the increased market share for the multiples (Figure 4).

Table 1: UK retail sales of fish by sector by value in 1995 and 1997

	1995 £m	%	1997 £m	%	%change 95-97
Frozen Fish	453	32	466	32	2.9
Fresh Fish	475	34	495	34	4.2
Canned Fish	307	22	309	21	0.7
Ready Meals	170	12	191	13	12.4

Source: adapted from MINTEL Market Intelligence 1998

Figure 4: Shares of Retail sales for fresh fish in 1995

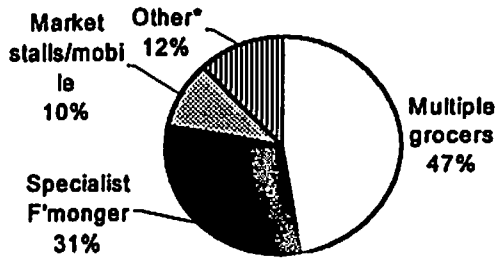
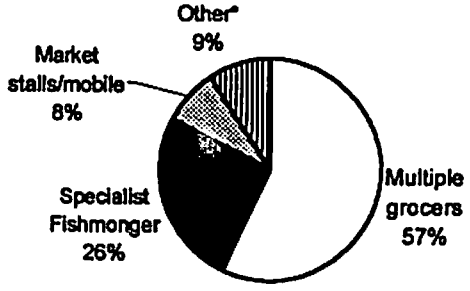


Figure 5: Share of Retail sales for fresh fish in 1997



A3.2 Product flows

There are significant differences between ports in terms of the species traded and the product flows of these species. In this section only the most significant product flows for useful indicator species (cod, plaice, monkfish and Nephrops) are illustrated. All the interconnections occurring for the transport of a particular species of fish would be too complex to present graphically and are not shown. The major landing regions, processing centres and imports/exports are, however, presented. The data used to produce the following maps are presented as appendices to this report.

Map 1 shows the breakdown of fish types landed to UK ports by area of capture, illustrating that the waters around the UK vary in terms of species composition. This is reflected in the landing composition (Map 2) where ports in certain areas have grown to specialise and gain reputations for certain species, based primarily on the relationship between port location, fleet composition and the location of fisheries.

While Map 2 shows regional differences in landings (for example more flatfish landed in the South West of England; most Nephrops landed to the West of Scotland and the ports of Northern Ireland), few ports have specialised to such an extent that only one type of fish is landed.

Maps 3 to 6 show the main flow into and out of the country for species of great commercial importance in the UK, followed by an explanation of these flows. These are supported by calculations from the most recent MAFF statistics (1997).

Map 7 is a graphical representation of movements of raw material between regions and imports to UK processors. These flows have significant implications for port markets. With large amounts of product being trucked or flown into processing centres, there is a reduced reliance on direct landings to the local port. This situation is being recognised by port managers and efforts to prevent fish bypassing the market include a reduced levy on consigned fish (for example at Aberdeen) and road access improvements. The changing emphasis on raw material sources is illustrated by the planned positioning of a new Hull fish market 300 metres away from the quayside for improved road access.

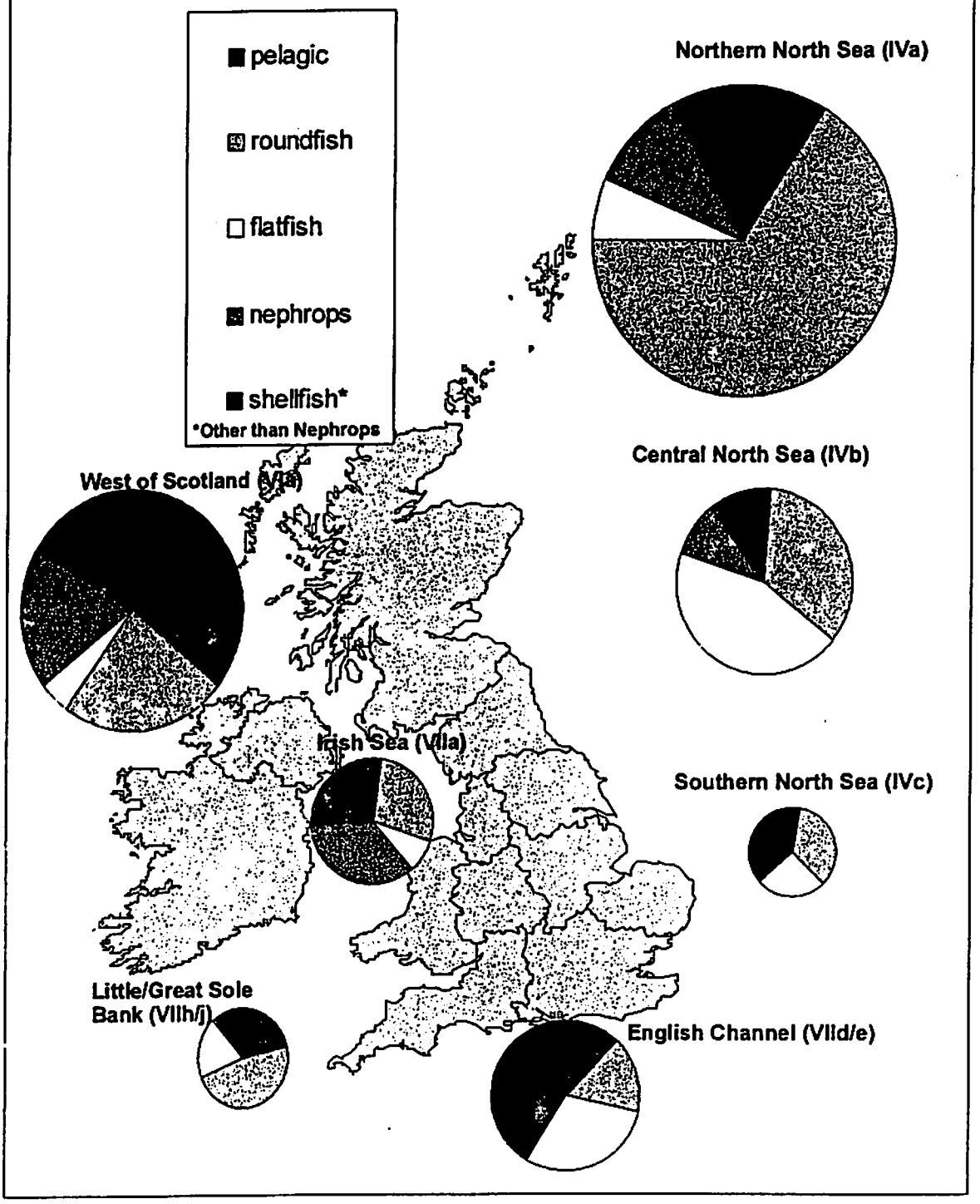
The UK is a net importer of fish, both in fresh and frozen forms. The table below gives the provisional import figures for 1997, showing the major suppliers to the UK. Cod accounted for £146 M of these imports, exceeded only by shrimps and prawns (£156 M). The finfish rivalling cod were tuna (tinned) valued at £131.7 M and salmon (farmed) with fresh and smoked imports valued at £30.7 M and £80.8 M respectively.

Table 2: Major countries supplying the UK in 1997

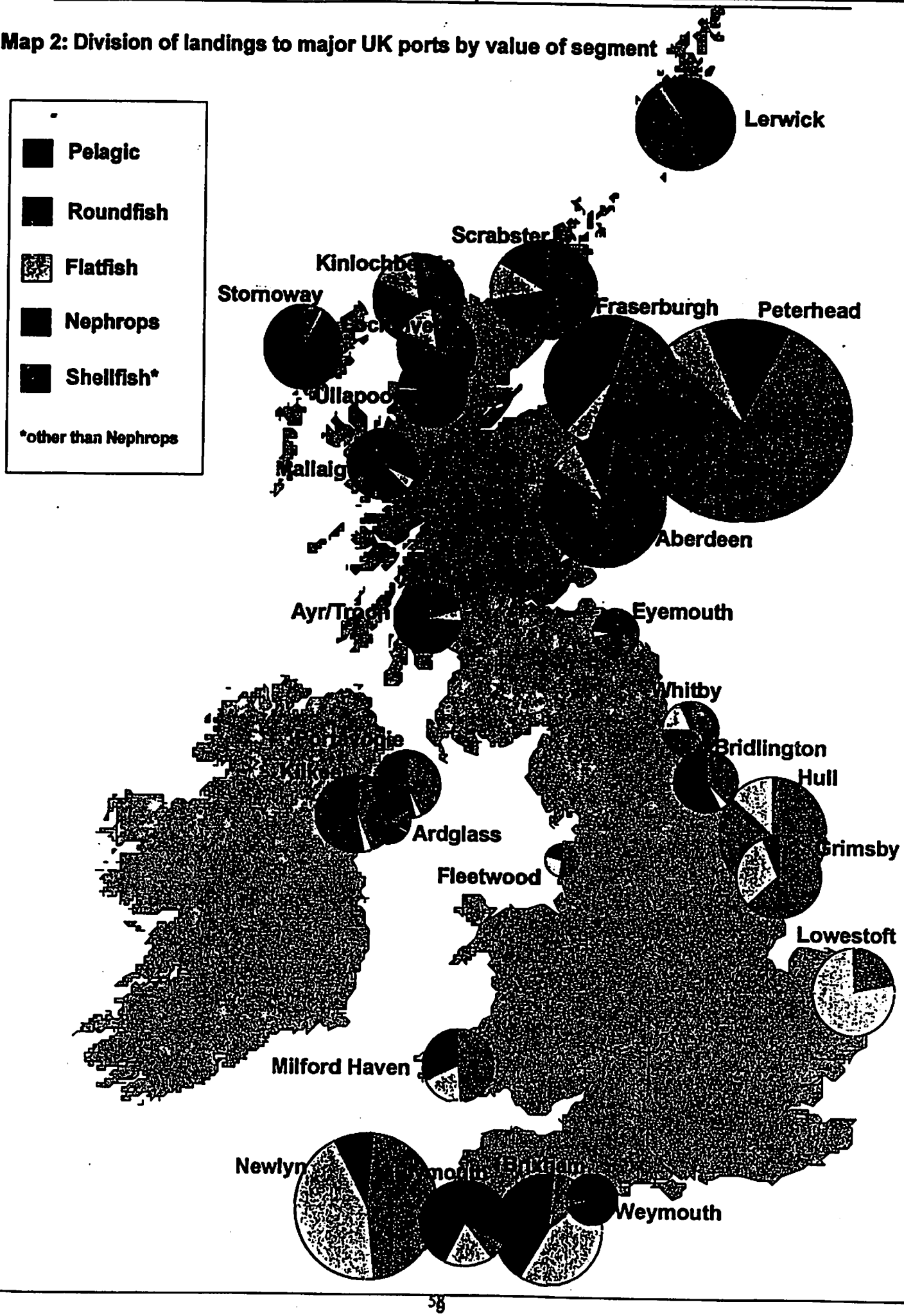
Country	Value (£M)	Volume ('000 tonnes)	Main species
Iceland	153.3	56.4	cod
Norway	147.2	71.9	cod and salmon
Faroe Islands	102.4	50.7	cod
Denmark	78.6	31.6	pelagics/fish meal/oil
Holland	36.4	12.7	plaice

Source: MAFF

Map 1: Catch by UK vessels by value by area of capture landed to UK ports

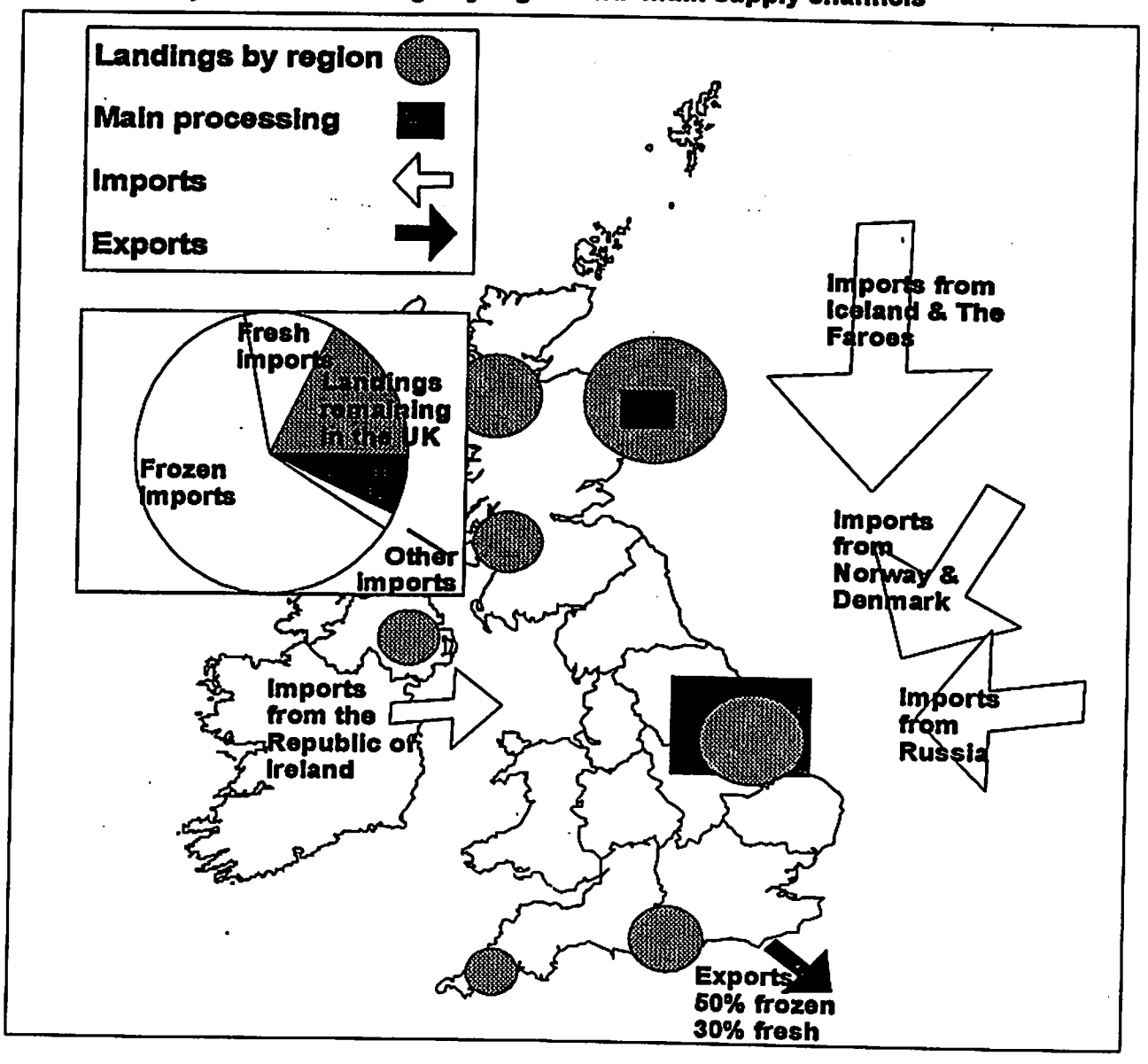


Map 2: Division of landings to major UK ports by value of segment



A3.2.1 Cod

Map 3: Cod - Landings by region and main supply channels



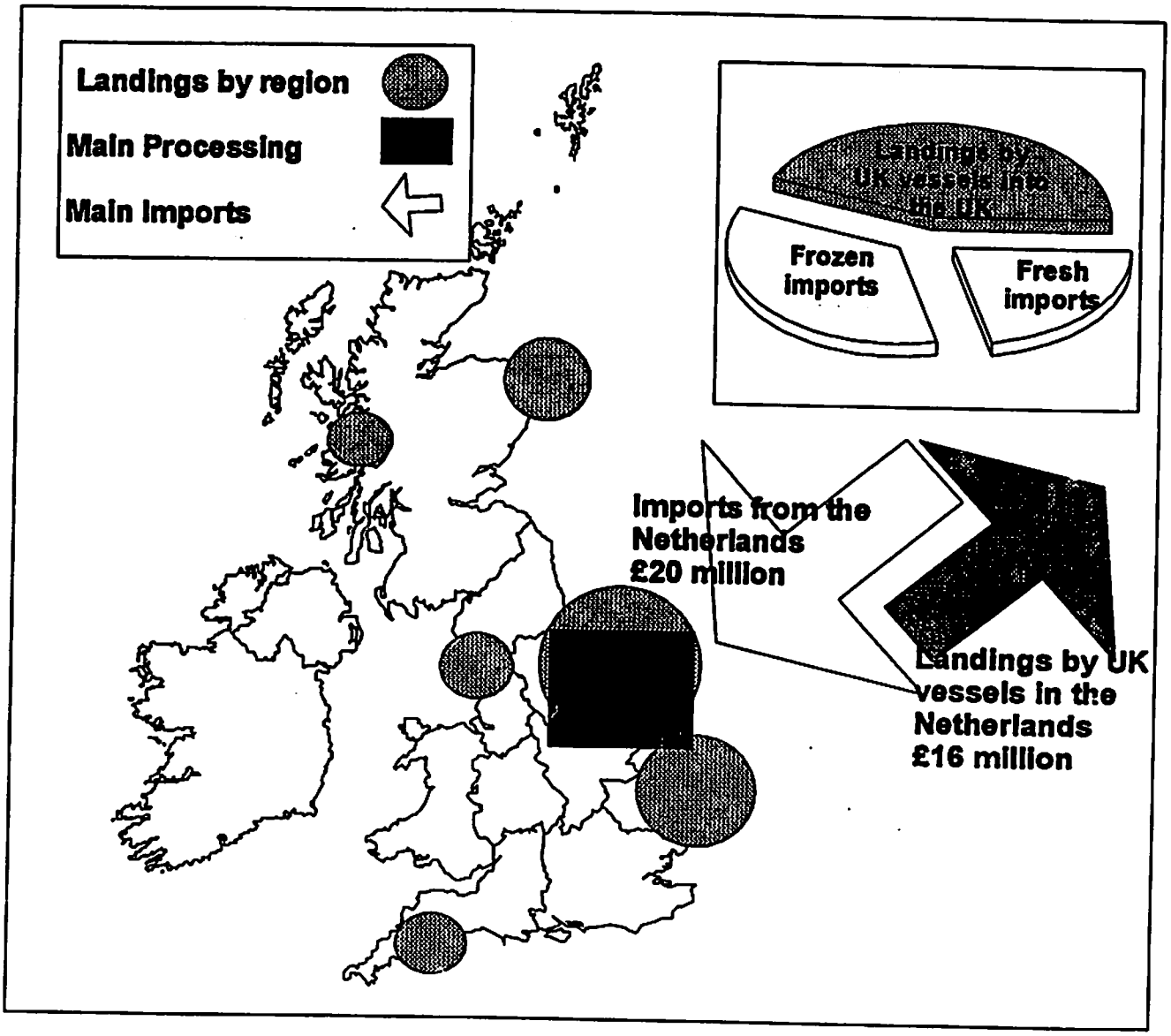
While a large proportion of landings is into North East Scotland (36 per cent of cod landed in the UK in 1997 was to Peterhead, Fraserburgh or Aberdeen), fresh and frozen imports as well as overlanded fish are maintaining Humberside as the major processing centre for cod. For haddock, the other UK staple, fish is more likely to remain in Scotland (57 per cent landed to the 3 big North East Scotland ports) for processing and distribution. The general rule of haddock for Scotland and cod for England still applies and shows no signs of changing.

Fish landed at some UK ports often gets transported closer to the large processing centres of Humberside or Grampian to go across the auction (around 75 per cent of fish sold at Grimsby is consigned in this way). Most imports, however, go direct to processors.

Recently frozen imports from Russia have continued to make a significant contribution to supplies (approximately 15 per cent of cod imports) despite tightening management measures on Arctic and Barents Sea stocks. The current economic crisis in Russia is resulting in lower prices being charged for this fish compared to other cod exporting countries.

A3.2.2Plaice

Map 4: Plaice - Landing by region and main supply channels



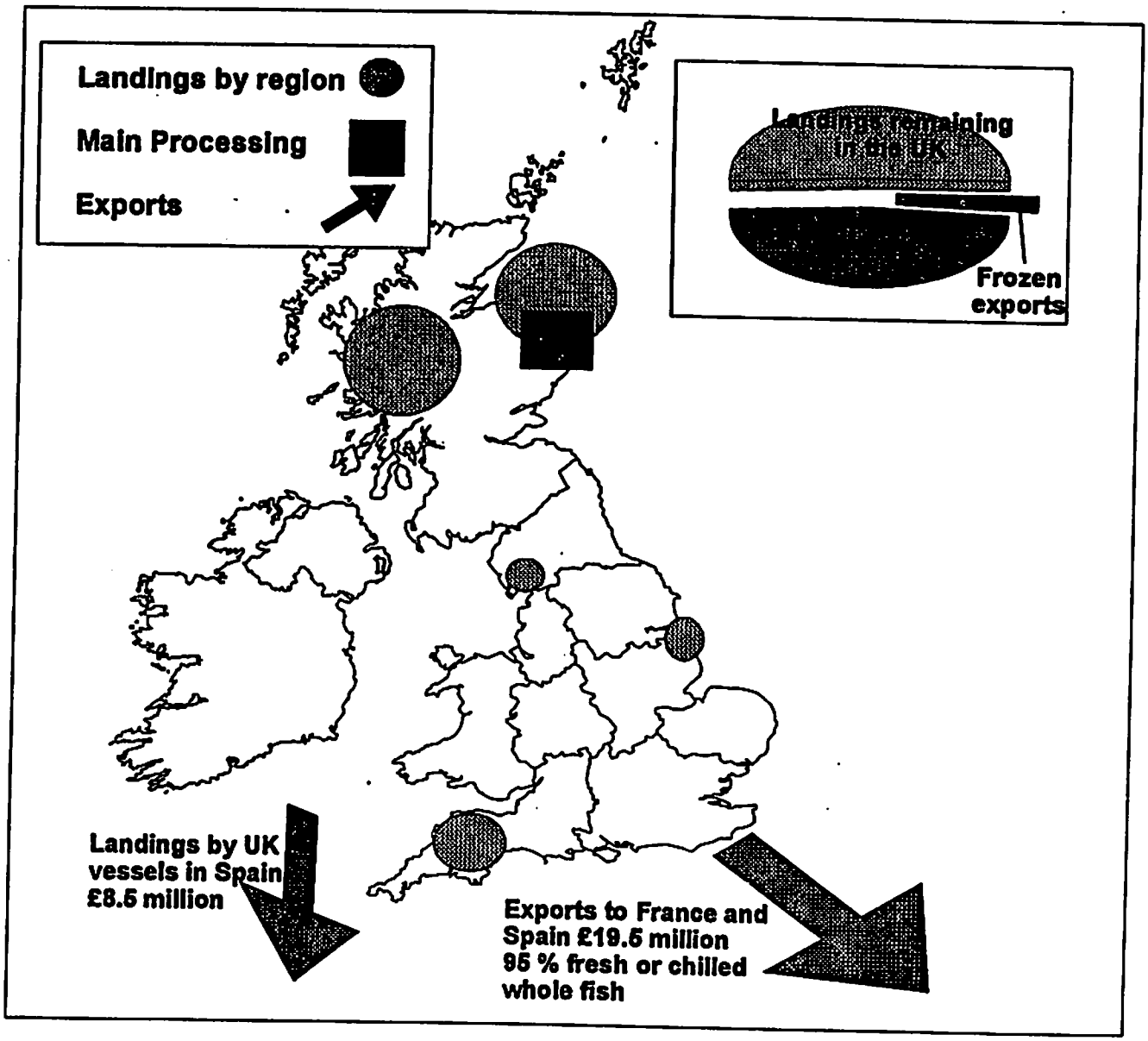
Landings of plaice are more concentrated in the English ports, such as Lowestoft, Brixham and Grimsby (these three making up 43 per cent of the £17.3 M UK landings of plaice). This is due to their proximity to the fishing grounds of the Irish Sea, English Channel, and the southern and central North Sea areas.

The movement of plaice is an example of some of the market induced peculiarities of the fish trade. More plaice is imported into the UK from the Netherlands (around £20 M in 1997) than is exported by the UK (£5.4 M in 1997). This indicates that there is a demand for plaice from the UK processing sector, but it is also the case that the size of fish demanded by these two markets differs. Thus, for example, UK registered vessels landed £16 M of plaice directly to the Netherlands in 1997, though the activities of the Anglo-Dutch flag of convenience vessels would have had a major impact on these figures.

It is well known in the industry that auctions in Urk and Ijmuiden have a large number of flatfish buyers who consistently pay a higher price for the fish, though the extent to which this is true varies with size grade. UK Fishermen have therefore found it economically viable to land to the Dutch markets. Many landings to UK ports are also consigned to the Netherlands for sale on the Urk or Ijmuiden auctions.

A3.2.3 Monkfish

Map 6: Monkfish - Landings by region and main supply channels

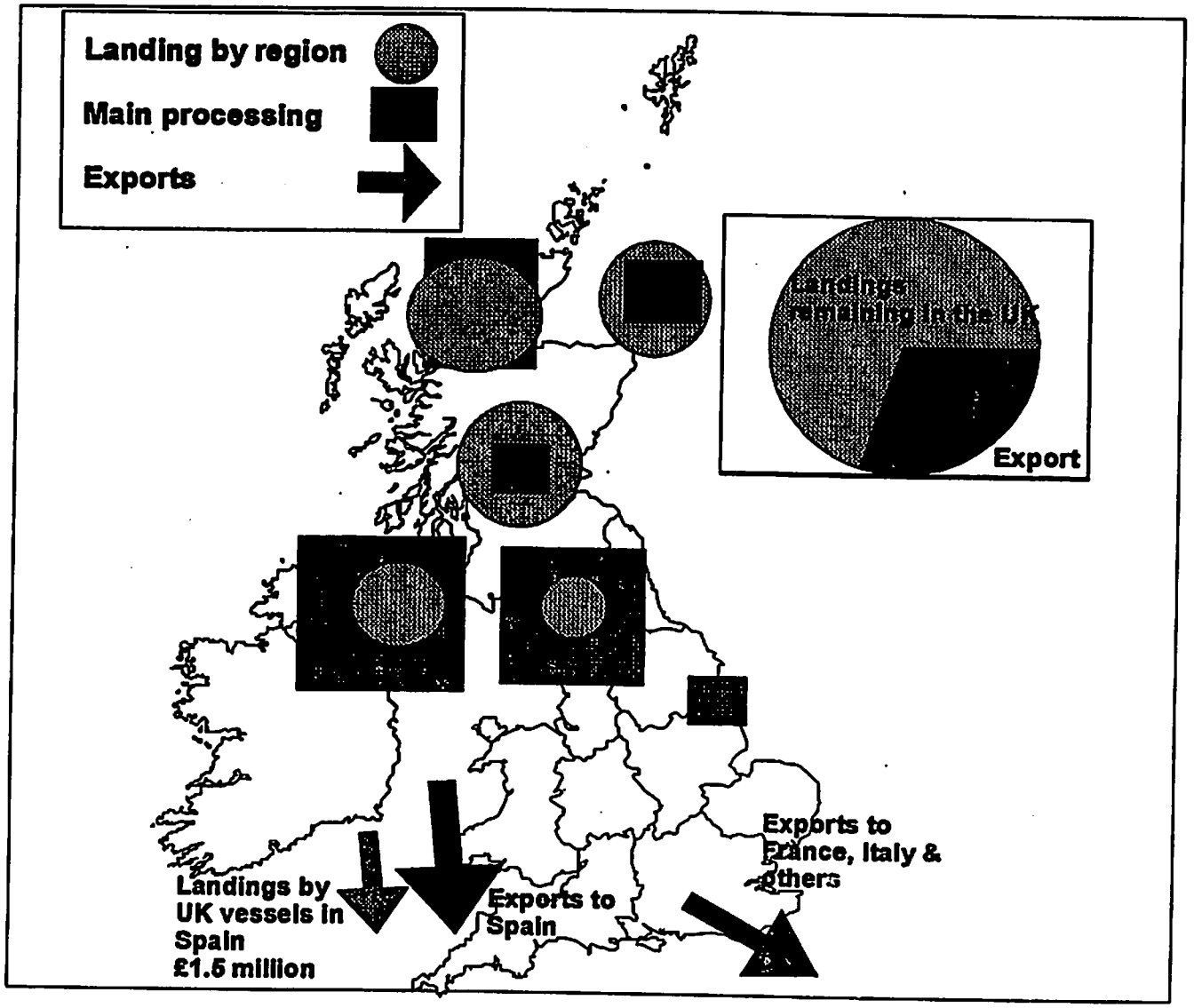


The main landing areas are the West Coast of Scotland ports and South West England, due to their access to deeper waters and fleets prosecuting deep water fisheries, and the ports of Grampian. Foreign vessels landed 1,215 t of monkfish to UK ports in 1997 (4 per cent of the 29,800 t of monkfish landed to UK ports) with the bulk of this immediately transported to the continent after being processed on board, leaving only fish surplus to continental orders reaching UK markets.

The prime markets for monkfish are Spain and France where a premium price is paid for fresh whole fish and tails. Monkfish has a small market share in the UK, mostly to the restaurant trade, and therefore a large proportion of this high-value fish is exported fresh to Spain and France where demand is high. In 1997, UK vessels landed £8.5 M of monkfish directly to Spanish ports, 15 per cent of the total catch by UK vessels.

A3.2.4Nephrops

Map 6: Nephrops - Landings by region and main supply channels

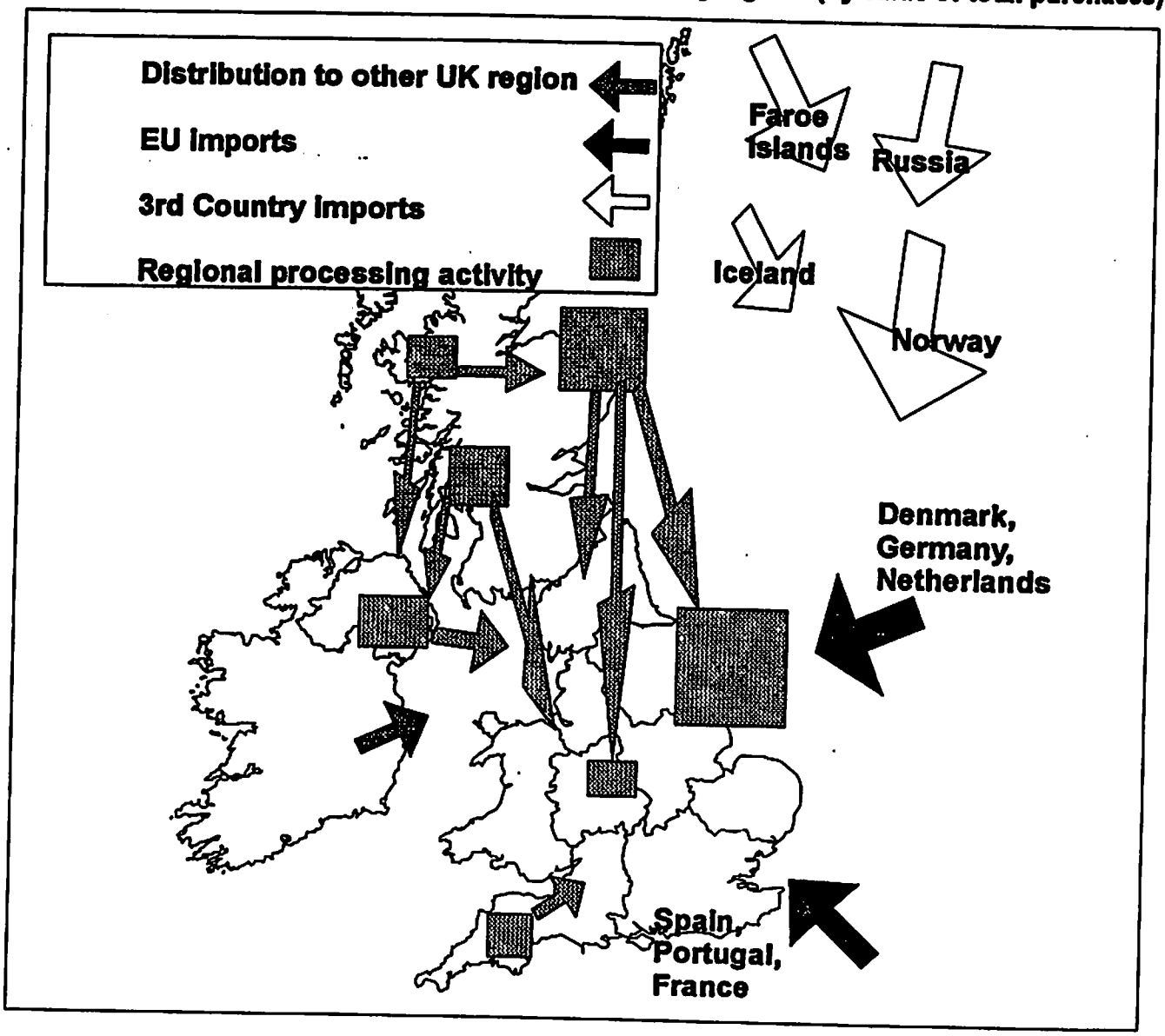


Two distinct product flows are observed for this species. The UK market is for the production of breaded tails (termed "scampi" by the UK trade), and is dominated by an oligopoly of large firms. At present only a small proportion (around 10 per cent) of the nephrops catch is auctioned (Kilkeel and Ardglass, Northern Ireland hold the UK's only regular nephrops auctions), the remainder is sold directly to processors as tails or exported whole to the continent. Seventy six percent of the prawns landed in 1997 were into Scottish ports. Northern Ireland had 16.7 per cent of the landings in 1997, but it is estimated that one third of the UK nephrops processing industry is located there.

A small number of vessels creel for the species rather than trawl, catching larger animals that are less likely to be damaged. These are mostly exported, live where possible, to Spain and France. Currently this fishing method accounts for less than 1 per cent of the 31,000 t landed in 1997. With considerably higher prices paid for creel caught prawns, the percentage share of the market by value is thought to be between 3 and 5 per cent of the £63.5 M first-hand sales in the UK in 1997.

A3.3 Product flow to processors

Map 7: Significant flows of raw material to UK Processing regions (by value of total purchases)



The largest processing region remains Humberside with around 46 per cent of the total sales of raw material to UK processors, with Grampian region the other large processing centre (23 per cent). Most movement of raw material is to the Humberside region, including 11 per cent of sales to Humberside processors from the Grampian region. By far the largest proportion of supplies to Humberside processors (39 per cent), however, comes from countries outside the EU such as Norway, Iceland, the Faroes and Russia.

The significant inter-regional flows other than to Humberside are consignments from the west coast of Scotland to Grampian and movement of fish from all over Scotland to processors in most regions in England, other than the South West. In South West England the dominant flow of fish remaining in the UK is out of the region to Humberside with little sold to South West processors from other regions. Northern Ireland processors receive most supplies from the West Coast of Scotland (nephrops) and this is matched in value terms by movement of whitefish from Northern Ireland across to England (mainly Humberside).

A3.4 Schematic representation of product flows

The diagrams below show the flow patterns of raw material displayed by species or species groups. In this instance movement of material is illustrated into and out of the system from primary and secondary processors or is seen by-passing a processor stage.

This schematic representation of product flow shows the significant differences between the ways that different species are handled. This has enormous strategic significance in respect of the sales and distribution systems most suited to each raw material group.

Cod has the most complex pattern with imports of raw material combining with domestic landings in the supply chain at every stage.

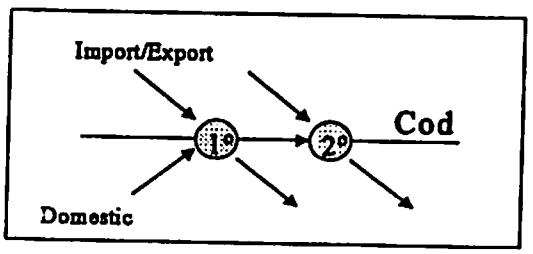
Monkfish, as with the prime fish model (applying to species such as sole, hake and megrim), is primarily exported to the continent either directly on landing or after primary processing. A small proportion is retained in the UK for domestic consumption.

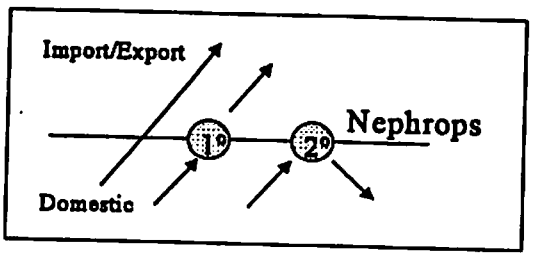
Plaice is moved either directly from landing in the UK to the continent or sent to UK primary processors. From primary processing the flow splits between being retained for UK consumption or moved on to secondary processing (breading). UK secondary processors also import raw material from the continent for domestic consumption.

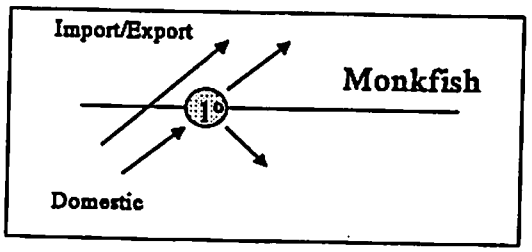
Nephrops is shown as exported unprocessed or retained in the UK for primary processing. A characteristic peculiar to nephrops is the flow of raw material direct to secondary processors for the production of breaded scampi, a product which is retained in the UK for local consumption.

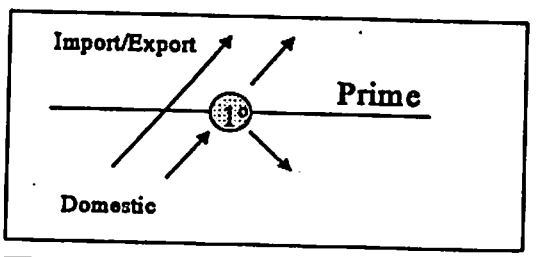
Deep water species currently have a very small market in the UK and therefore go straight to the continent either unprocessed or after primary processing in the UK.

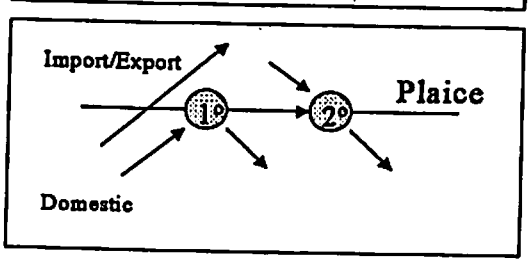
Managers of ports with a particular species or mix of species being landed should address the flow of specific species and develop strategies taking those flows into account.

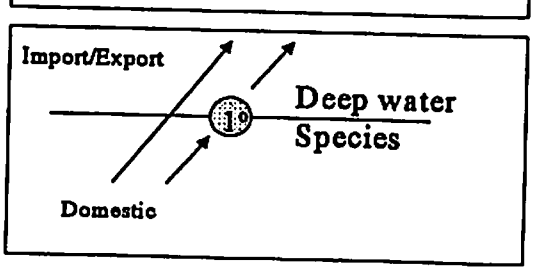












Appendix: Background data

The data presented below was used for the production of the maps and graphs in Chapter 2, unless otherwise stated. Landing information courtesy of MAFF. Processor information is based on information from interviews and the "Review of the UK Processing Sector", Seafish.

Value of landings to UK ports by UK vessels, by ICES area - 1997

Value (£'000)	*pelagic*	*rounds*	*flats*	*nephrops*	*shellfish*	*total*
Northern North Sea (IVa)	16,133	115,638	10,980	18,876	13,988	***175,615***
West of Scotland (VIa)	46,967	30,935	5,814	25,141	21,714	***130,571***
Central North Sea (IVb)	1,038	28,263	35,923	7,969	8,406	***81,599***
English Channel (VIId/e)	7,982	10,388	19,432	3	26,943	***64,748***
Little/Great Sole Bank (VIIh/j)	8,768	19,112	7,848	376	4,294	***40,398***
Irish Sea (VIIa)	631	9,217	2,714	11,577	8,492	***32,631***
Southern North Sea (IVc)	379	4,928	3,525	0	5,181	***14,013***
Rest of ICES area VII (VIIf/g)	681	6,720	4,569	172	5,175	***17,317***
Norwegian coast (IIa)	2,196	9,464	45	10	0	***11,715***
Rockall (VIb)	1	7,231	793	260	351	***8,636***
West of Great Sole Bank (VIIk)	30	9,599	1,093	408	825	***11,945***
Bear Island & Spitzbergen (IIb)	0	6,407	69	0	0	***6,476***
Porcupine Bank (VIIc)	154	5,529	639	154	694	***7,170***
West of Ireland (VIIb)	2,780	4,380	294	42	455	***7,951***
East Coast of Greenland (XIV)	0	232	344	0	0	***576***
Bay of Biscay (VIII)	156	793	4	0	429	***1,382***
Faroes (Vb)	448	959	101	0	5	***1,513***
Barents Sea & Murman coast (I)	0	520	0	0	0	***520***
North Azores (XII)	0	179	3	7	17	***206***
Total All landings	***65,520***	***270,646***	***97,162***	***63,120***	***93,239***	***589,687***

Value of 1997 landings by port, and by species group (£'000)

	pelagic	roundfish	flatfish	nephrops	shellfish*	total
Peterhead	5,081	58,743	4,757	3,907	696	73,184
Fraserburgh	1,702	15,719	1,843	9,561	2,570	31,395
Shetland	11,325	11,719	546	273	1,873	25,736
Scrabster	206	18,149	3,193	525	3,543	25,616
Aberdeen	606	19,583	2,002	602	1,272	24,065
Newlyn	383	10,958	10,551	40	1,762	23,694
Hull	268	15,013	2,430	0	13	17,724
Brixham	300	2,356	7,615	0	7,414	17,685
Mallaig	810	4,670	1,033	8,119	2,746	17,378
Stornoway	45	1,050	174	5,500	8,158	14,927
Kinlochbervie	0	11,096	2,189	48	246	13,579
Ullapool	6,333	1,570	126	1,669	891	10,589
Lowestoft	0	2,153	7,223	1	41	9,418
Ayr	61	1,670	395	3,854	2,206	8,186
Grimsby	0	4,465	2,301	0	418	7,184
Plymouth	2,143	474	1,091	0	2,815	6,523
Kilkeel	36	2,811	193	3,171	221	6,432
Weymouth	4,407	285	37	0	1,677	6,406
Portovogie	14	2,402	200	2,807	285	5,708

	pelagic	roundfish	flatfish	nephrops	shellfish*	total
Bridlington	0	1,800	239	0	2,777	4,816
Ardglass	700	600	100	2,300	400	4,100
Eyemouth	0	2,800	200	800	100	3,900
Whitby	0	3,211	797	13	270	4,291
North Shields	89	1,752	440	1,652	58	3,991
Poole	18	521	38	0	3,166	3,743
Bridlington	0	1,888	168	0	1,670	3,726
Scarborough	0	2,561	512	0	627	3,700
Ardglass	536	465	88	1,833	209	3,131
Looe	237	876	1,130	0	876	3,119
Milford Haven	1	1,477	565	19	991	3,053
Padstow	0	1,208	1,065	0	197	2,470
Blyth	261	1,115	169	858	8	2,411
Shoreham	4	502	1,009	0	580	2,095
Fleetwood	0	778	1,035	95	82	1,990
Falmouth	365	705	232	11	497	1,810
Hartlepool	20	350	534	421	17	1,342
Amble	0	277	125	655	266	1,323
Kingswear	0	16	1	0	1,020	1,037

Total	35,464	228,702	66,375	60,719	83,996	

Species processed by region £ millions - (blank = <£50,000)

demersal	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
cod	166.5	5.4	3	5.3	23.4	3.9	2.8	0.5	210.8
haddock	46.1	2.5	3.7	12.3	27.8	2.7	2.9	0.2	98.2
plaice	14.6	2.4	8.2	2.7	4.9	1.6	1.2		35.6
whiting	12.5	1.4	0.3	1.8	19.8	1.8	1.2	2.3	41.1
pollack	32.8	0.9	0.1		0.8		0.1		34.7
saithe	6.7	0.5	0.1	0.2	6.1	0.8	0.5		14.9
hake	7.1	2	1.9		5.3	0.8	0.4	0.1	17.6
monk/angler	1.1	1.2	0.2	1.2	31.2	0.7	0.8		36.4
other demersal	20.9	0.8	2.2	5.4	13.7	0.5	0.4		43.9
total demersal	308.3	17.1	19.7	28.9	133	12.8	10.3	3.1	533.2

pelagic	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
herring	1.7	0.7	0.7	0.1	12.9	0.4	0.4	0.3	17.2
mackeral	0.6	0.8	0.4	0.1	11.6		0.1	0.3	13.9
other pelagic	0.3	0.5		0.6	0.2	0	0	0	1.6
total pelagic	2.6	2	1.1	0.8	24.7	0.4	0.5	0.6	32.7

shellfish	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
nephrops	2.5	0		17.6	8	21	3.5	18.7	71.3
scallops	0.8	20.7	0.5	0.7	0	3.6	14.3	0.7	41.3
crabs	0.4	0.6	1.5	0.3	0	0.1	0.1	0.2	3.2
other shellfish	15.4	8.3	26.8	2.9	1.1	0.4	0.5	1.6	57
total shellfish	19.1	29.6	28.8	21.5	9.1	25.1	18.4	21.2	172.8

processed	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
total processed	330	48.7	49.6	51.2	166.8	38.3	29.2	24.9	738.7

Sales by region £ millions

	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
total demersal fish	607.7	44.2	85.7	60.4	280.2	29.1	15.2	5.8	1128.3
fresh/chilled	125.8	20.8	38.2	35.6	151.3	21.8	10.2	5.4	409.1
whole fish	12.6	4.2	1.5	4.5	26.2	5.8	2.5	0.3	57.6
fillets	76.7	11.6	10.9	30.9	120.7	11.1	7.6	4.1	273.6
packs	31.6	1.6	0.4	0.2	4.3		0.1	0.4	38.6
fish dishes/meals	4.9	3.4	25.4	0	0.1	4.9	0	0.6	39.3
smoked	29	15.1	0.6	0	40.4	1	0.9	0	87
frozen	404.3	4.6	46.2	8.7	83	6.3	4.1	0.4	557.6
whole fish	5.5	0.3		0.2	2			0	8
natural fillets (inc steaks, ind. bocks)	66.9	3.5	4.7	6.1	57.3	6.2	2.5	0.4	147.6
coated fillets	134	0.8	14.6	2.4	23.6	0.1	0	0	175.5
fish fingers	118	0	0	0	0	0	0	0	118
fish dishes/meals	79.9	0	26.9	0	0.1	0	1.6	0	108.5
other products	48.6	3.7	0.7	16.1	5.5	0	0	0	74.6

	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
total pelagic fish	6.5	9.3	4	0.9	62	5.1	1.1	1.9	90.8
fresh/chilled	1.3	2.2	1.3	0.1	25.2	4.6	0.2	0	34.9
whole fish	0.4	0.5		0	7.6	0	0.1	0	8.6
fillets	0.2	0.2	0.1		0.1	2.5	0.1		3.2
packs	0.7	1.5	1.2	0.1	17.5	2.1	0	0	23.1
smoked	2.4	0.9	2.7		27.7	0.5	0.2	0	34.4
frozen	2.8	3.6	0	0.8	9.1	0	0.7	1.9	18.9
whole fish	0.2	0.3	0	0.4	0.5	0	0	0	1.4
fillets (inc steaks, ind blocks)	2.6	3.3	0	0.4	8.6		0.7	1.9	17.5
other products	0	2.6	0	0	0	0	0	0	2.6

	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
total shellfish	31.7	42.5	32.4	46.1	8.6	37	52.4	32.7	283.4
nephrops	5.7			30.6	5.5	28.8	13.5	28.9	113
total other crustacea	20.1	4.1	12.9	9.4	0	0.5	12.1	2.6	61.7
crabs	0.3	0.7	3.5	1.4	0	0.5	0.2	0.3	6.9
other crustacea	19.8	3.4	9.4	8	0	0	11.9	2.3	54.8
molluscs	2.3	31.5	4.3	1.3	2.2	7.7	22.9	1.2	73.4
fresh scallops	0	16.7	0	0.5	0	4.4	6	0.1	27.7
frozen scallops	0.4	11.2	0	0.1	0	2.4	16.9	0.8	31.8
other molluscs	1.9	3.6	4.3	0.7	2.2	0.9		0.3	13.9
total other products	3.6	6.9	15.2	4.8	0.9	0	3.9	0	35.3
squid/octopus	0.4	4.7		0	0.9	0	0.1	0	6.1
shellfish dishes/meals	0	0	10.3	0	0	0	3.5	0	13.8
other products	3.2	2.2	4.9	4.8			0.3	0	15.4

	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
total all products sold	645.9	96	122.1	107.4	350.8	71.2	68.7	40.4	1502.5

Increase in value due to processing £ millions

	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
demersal	299.4	27.1	66	31.5	147.2	16.3	4.9	2.7	595.1
pelagic	3.9	7.3	2.9	0.1	37.3	4.7	0.6	1.3	58.1
shellfish	12.6	12.9	3.6	24.6	-0.5	11.9	34	11.5	110.6
total	315.9	47.3	72.5	56.2	184	32.9	39.5	15.5	763.8

Inter-regional flows of sales - £ millions

	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	N. Ire.	Total
Humberside	32.3		5.9	8.6	7.0	13.5	2.1	0.4	69.8
SW England	12.9	28.8	3.7	3.2			2.1	1.6	52.3
South/Mids/Wales	51.7	27.8	29.3	23.6	45.6	2.1	12.4	2.8	195.4
N England	32.3	10.6	6.1	35.4	14.0		0.7		99.1
Grampian		0.0			45.6		2.1	0.0	47.7
High & I	0.0	0.0	1.2	0.0		1.4		0.0	2.6
Other Scot		0.0	3.7	1.1	31.6	12.8	4.8	0.0	53.9
N. Ireland		0.0	1.2	0.0	7.0	4.3	0.0	8.9	21.4
central UK depot	432.8	4.8	62.3	22.6	91.2	5.7	29.5	17.8	666.6
Exports	84.0	23.0	9.8	12.9	108.7	31.3	15.1	8.9	293.7
total UK sales	561.9	72.0	113.3	94.5	242.1	39.9	53.6	31.5	1208.8
total	645.9	95.0	123.1	107.4	350.8	71.2	68.7	40.4	1502.5

Sales to fish processors - £ millions

	Humber	SW Eng.	S/M/W	N Eng	Gramp.	High & I	Oth Scot	total
Humberside	89.1	0.5	3.0	7.7	1.7	0	0	
SW England	3.3	44.7	0.5	0		0	0	
South/Mids/Wales	9.9	0	8.9	1.0	0	0	0	
N England	9.9	0	2.0	12.8	0	0	2.6	
Grampian	36.3	0	6.4	6.7	103.5	5.0	5.0	
High & I	16.5	1.5		3.6	56.7	30.7	2.6	
Other Scot			4.5	10.8	1.7	1.9	17.3	
N. Ireland		0	0	0.5		0	0.9	
EU Imports	33.0		18.8			0.8		
3rd Country Imports	128.7	1.5	5.5	8.2	1.7	0	0.6	
total	326.7	48.1	49.6	51.2	165.2	38.4	29.0	708.3
percent of UK industry	46%	7%	7%	7%	23%	5%	4%	

Annex 4: Likely trends for the retailer, caterer and consumer sectors

As the fish supply chain becomes consumer and demand-led rather than the traditional supply driven industry, trends in retailing, consumption and catering will have significant knock on effects for the rest of the industry including port markets. This section examines these trends and the likely implications for port markets. Much of the focus is on the multiple retail sector that now accounts for an increasing share of fish sales.

A4.1 Retailers

A4.1.1 Wet fish market

The UK retail market for fish, excluding fish used in ready meals, was estimated at 302,000 t and valued at £1,461[2] M in 1997. In real terms the value of the sector has not been matched by the increase in volume and is currently 2 per cent below 1993 prices (Mintel 1998). Fresh fish accounted for 33 per cent of the total volume sold (101,000 t) and 34 per cent of the market value (£495 M). This is the highest value sector due in part to the price premium which fresh fish can command over other product forms. Over the 1995-1997 period fresh fish has shown steady growth, around 4 per cent, with respect to both volume and value of the sector.

While fresh fish has traditionally been sold through fishmongers the major UK multiple retailers, which include Tesco, Sainsbury's, Safeway, Asda, Waitrose, Somerfield and Wm. Morrisons, have shown a growing interest in selling fresh fish. Collectively they have around 60 per cent of fresh fish sales in the UK and one would expect this growth to continue.

Whereas multiple retailers were somewhat cautious about selling fresh/wet fish at one time, they now see it as forming an integral part of their product portfolio. Offering fresh/wet fish on fresh fish counters and in chilled pre-pack complements the frozen and canned fish already on sale. The ratio of wet to pre-packed (Modified Atmosphere Packs), including smoked fish, varies across retailers but ranges from 70:30 to 35:65 depending on the store. Pre-pack is growing and it offers retailers and (younger) consumers a number of advantages. Retailers benefit from easier storage, longer shelf life, better opportunities for product presentation and the provision of on-pack information, while consumers are presented with, arguably, a more convenient way to buy, store and prepare fresh fish. This option is believed to be more attractive to younger consumers or those who are unfamiliar with buying wet fish from the counter.

The wet fish counter is believed, by the retailers, to have an important role to play in creating a positive store image and to be instrumental in both encouraging existing users to eat more fish and in attracting new users. The overall effect is to raise the general level of awareness of fish across the whole range of fish products from fresh through to frozen and canned. The commitment of the multiples to wet fish is reflected in the fact that most new store openings and store refits have a dedicated wet fish counter facility. Current estimates suggest that the major multiples together have around 700 fish counters. Tesco currently has the most wet fish counters (365) followed by Sainsbury's (204). Although the proportion of stores with counters is highly variable, Tesco has wet fish counters in 61 per cent of stores, and Sainsbury's in 50 per cent. By contrast, Waitrose (104) boasts counters in over 90 per cent of stores, Wm. Morrison (73) in 82 per cent of stores, and Somerfield has yet to install any (Mintel 1998).

Ready meals make up the complement of fish products on sale and represent the fastest growing product category, reflecting a general trend towards more convenience.

A4.1.2 Species

Multiple retailers claim to sell around seventy species of fish through wet counter and pre-pack operations, although the range of species varies across stores. Tesco, for example, has a "must-

[2] SFIA estimates, based on AGB Superpanel data, are closer to £1000 million in 1998. The differences arise from data collection methods and SFIA figures cover only fresh, chilled frozen and processed products.

start" range of thirty-three types of seafood. Despite the wide range of species available on the UK market cod (24 per cent market share by value), haddock (17 per cent) and salmon (17 per cent) account for the majority of products bought by British consumers. Together these three species accounted for 58 per cent of UK fresh/chilled fish sales in 1997. Plaice (5 per cent), trout (5 per cent), mackerel (5 per cent), herring (2 per cent), coley (2 per cent) and whiting (1 per cent) sales are not insignificant but 'small fry' compared to the main species (Mintel 1998). Together the above species account for 79 per cent of UK fresh/chilled fish sales. Estimates vary across the multiples but cod and haddock can account for anything up to 70 per cent of wet/fresh sales volume in individual retail stores. Perhaps the most notable trend has been the growing sales of farmed salmon. For some of the multiple retailers salmon now accounts for 25 per cent of their wet fish sales.

Exotics, including tuna, swordfish, marlin, grouper, sea bream, and sea bass, account for a small percentage of wet fish sales; around 1-2 per cent. Prawns and shellfish can account for anything up to 40 per cent of wet counter sales in certain stores but average around 20 percent of fresh sales volume for the multiples.

A4.1.3 Suppliers

The current trend among the multiple retailers is towards establishing and building close trading relationships with a small number of key merchants and processors. Consequently many have been rationalising and cutting back on the number of suppliers they use, preferring to work in 'partnership' with their suppliers rather than trading solely on price. The majority of multiple retailers are buying fish from three to six core suppliers, although they may source from many more suppliers. If this process of rationalisation and building longer term trading relations continues, and we believe it will, there will be further fall out in the processing sector as business becomes concentrated in a smaller number of firms. By developing close trading relationships with a smaller number of suppliers retailers believe they can guarantee access to a regular supply of fish that meets their customer expectations. In turn they can use this as a way to communicate back through the supply chain and attempt to ensure it is more 'market' focused and efficient.

Processors are only too aware of the over-capacity in their sector and many are keen to secure 'contracts' to supply. They in turn are increasingly responsible for meeting the quality standards set by the retailer, and will work closely with the retailers. While backward vertical integration is unlikely through acquisition (the multiple retailers recognise their strengths lie in selling fish to the consumer not catching or processing it), the retailers are clearly beginning to exert their influence right the way back through the supply chain.

If British fishermen, merchants and processors who service the movement of fish through the supply chain cannot meet market requirements there is little doubt that the retailers will source fish from elsewhere and look outside the UK. It has been calculated that domestic landings could supply 78 per cent of the total demand for fresh cod, but only around 28 per cent are being purchased by the multiples[3]. At first this might seem a strange anomaly but many of the retail buyers claim that due to the highly variable quality of fish landed, the inconsistency of supply, and poor level of service, they are often left with little option but to source fish from elsewhere. Basically the British fishing industry is not as market orientated as it could or should be.

Some retail buyers feel that a major attraction of aquaculture is that it addresses the perpetual problem of inconsistent supply, and if farmed cod, halibut, and turbot become commercially viable aquaculture will offer an attractive alternative source of product.

A4.1.4 Imports

Retailers are committed to providing consistent quality to their customers irrespective of the source of landings. Any commitment to UK suppliers is and will be dependent on their ability to deliver a consistent supply of quality fish. Currently imports account for an increasing proportion of demersal sales and the retailer indicate that this situation is unlikely to change. A number are importing over half of their cod and haddock and one buyer is seriously contemplating buying all cod from outside the UK. The main justification for this is, again, the lack of fish of a consistent quality and quantity being landed at British ports, and favourable experiences with importing fresh fish from abroad.

[3] Seafish Report, "Major market trends"

Sourcing strategies vary across the retailers but cod and haddock is being air freighted into the UK, mainly from Iceland and Norway; other sources mentioned include Poland and Denmark. Fish is landed from short trip day boats and can be in store within three days of catching, giving the retailer a product with longer shelf life. In addition it is claimed that Icelandic day boats have a less detrimental effect on the fish stocks (meeting sustainability requirements), and fish is handled better at all stages from catching to final delivery (meeting product quality specifications). Their commitment to quality is such that individual buyers inform us that if fish fails to meet high quality standards the importers withdraw it rather than offer it to the buyer.

There is willingness on the part of the multiple retailers to source fish from UK boats, but many feel that the required quality of product is simply not available. Some buyers claim to be seeking out sources of supply from UK short trip or day boats. In one case a buyer has located a source of line caught sea bass that is being offered in store. Retailers, and their processors, are looking to increase the volume of fish sourced from day boats under contract, by-passing the traditional auction market, but as yet this is notable more for its publicity benefits than as a significant source of supply. Where supply is taken direct from the vessel to the processor the main responsibility for supply, contractual and financial arrangements with the supplier lies with the processor. Most of these contractual arrangements take the form of a 'gentleman's agreement' and there are no advanced contracts. The proportion of catch taken from each catcher is negotiated on a boat by boat basis.

One interviewee predicts that the retailers will become even more reliant on imports due to a decline in North Sea stocks of the main fish species - cod, haddock and plaice. The better catching, handling and stock management policies of overseas suppliers, notably Iceland, will accentuate this.

A4.1.5 Product quality

Most of the retailers have a group of dedicated buyers and assistant buyers supported by the services of a technical manager. The retail technical specialist usually sets the quality specifications for buying fish. Visual assessment plays an important part in the quality inspection and buyers stress the need to buy fish which has been handled carefully at all stages in the supply chain, hence the reputation of the supplier is important. At the retail end individual store managers may be given the authority to reject fish that does not meet their specification.

One problem which the retail buyers talk about is the variability of quality that can arise where processors buy fish from a range of sources. Quality control is considered to be of central importance and is enforced by regular quality checks, unannounced visits to processors and vessels, and regular taste panel tests conducted by the processors or, in certain cases, by the retailers themselves.

Traceability, the ability to trace product back through the supply chain, is considered an essential part of this quality control exercise, although there is debate over how far one can trace product back through the supply chain. Individual buyers would welcome the opportunity to trace fish back to the individual boat, or to the individual box, but they are, to a degree, sympathetic to the practical constraints of doing so. Some of the multiple retailers have established dedicated 'customer hotlines' to monitor any customer complaints about fish products (similar services exist for meat and poultry). Traceability is obviously much easier with pre-packed product which has been bar coded.

It is proposed that some form of industry agreed quality approval scheme should be implemented to establish and maintain consistent quality standards across the supply chain (although this in effect is what many of the retailers are already doing independently of each other). The question here is whether such a scheme will raise the overall standards. The Scottish Salmon Board's 'tartan mark' is generally seen as a good thing for Scottish farmed salmon and provides a possible model for application to wild species.

A4.1.6 Prices

While the post harvest sector has endured high prices in the past year, the main problem is finding a sufficient supply of fish that meets quality standards set by the retail buyers. Price is important but retail buyers are looking for good value; that is, a price that reflects the quality of the fish on offer. Buyers stress that price is not the only criteria they use in buying fish: quality; guaranteed supply and trust play a large part in their decision about what to buy and who to buy from.

None of the retailers interviewed referred to electronic auction markets as a point of reference for pricing. Most prefer to place orders with their suppliers and expect to pay for good quality fish, in some cases paying 'top end' market prices.

There is little evidence of retailers setting prices in advance or, given the supply problems, committing to long term pricing agreements. However some work closely with their suppliers, planning annual budgets, with cost and profit projections agreed by both parties. The multiple retail buyers are aware of the pricing and promotional strategies of their competitors.

A4.1.7 Channel control

While wishing to exert greater control over the supply chain most retailers recognise the supply problems specific to the fishing industry and the specialist skills required in catching, handling, buying, and processing fish. Given these problems and the risks associated with backward investment, the multiple retailers will continue to build relationships with other channel members rather than integrate backwards through acquisition of processors, merchants or fleet. However, if the industry fails to deliver consistently high quality fish, at reasonable prices and in the volumes required, the retailers may be left with little option but to adopt a more aggressive interventionist stance.

The movement by retailers towards improved integration across the supply chain is likely to continue. In particular the focus will be on taking out inefficiencies and trimming costs, notably in processing and packaging, across the supply chain. However, this may also involve shortening the supply chain and unless the port auction market can be shown to offer some advantages to the multiple retail buyers or their suppliers it may be seen as one link in the chain which cannot be justified. This might be the position of the multiples, but does not necessarily mean a demise of the auction market, since the latter plays a central part in the distribution chain for independent fishmongers, mobile vans, caterers and restaurants. A number of the retailers are working closely with suppliers on supply chain arrangements as part of their Category Management and Efficient Consumer Response (ECR) programmes. In one case a major retailer has played a central role in setting up a processing company to act as sole supplier on specific lines. This trend towards dedicated suppliers is likely to bring about further casualties within the industry.

A4.1.8 Auction markets

The multiple retailers are not totally reliant on the traditional auction market and some see the traditional market as an unnecessary link in the supply chain that can, if by-passed, bring gains in efficiency and quality. Reliance on the auction for supply varies across the major multiples and in one case as little as 15 per cent of fresh fish is being sourced through the auction markets.

Part of the problem is summed up in the words of one retailer who sees the auction market as *'yesterday's way of doing things'*. Multiple retailers feel that the auction market is too focused on the production and catching side of the industry and see a number of problems with buying fish across the auction market. The problems include a lack of trading transparency (incomplete information either on advanced landings, or specific information on when, where and how fish is caught, and how long it has been on the market). Inconsistent quality and lack of grading, variable supply throughout the day and week, poor hygiene (eating and smoking on the market, walking on boxes, etc.), poor storage (no chilling facilities at many port auction markets), handling problems, and over filling of boxes are all mentioned by the retail buyers. Some of the retailers feel that more information can be provided on exactly where the fish is caught (fishing grounds) and when the fish is caught, even down to information on which haul the fish is caught in.

A4.1.9 Product development

Retailers expect to see an increase in demand for skinless and boneless fillets with consumers demanding more added value products. Much of this new product development is being carried out jointly between the processors and the retailers, and includes introducing new cuts of fish, new species, new breading and crumbing techniques and, increasingly, new sauces and complete fish dishes for the burgeoning ready-meals sector. It is of note that the growth in ready meals is not attributed to an increased demand for fish, but rather an increased demand for products which happen to contain fish.

The main growth area in the short term is likely to come from the fish ready meals sector, although the recent public debate over genetically modified foods may have a negative impact on this sector in general due to the highly processed nature of some of the ingredients. Notwithstanding the ready-meals sector the market shares between fresh, frozen and canned are likely to remain fairly constant.

The multiples are continually looking abroad for new products and different methods of selling and presenting fish that can be applied in the UK. Innovation is the key and they are heavily committed to new product development and improving the current product offering. The processors have a major role to play in this and are under pressure to come up with innovative ideas and new products. If the consumer demand for convenience continues to grow this ultimately means more fish being processed as added value products.

A4.1.10 Retailer image

The demand for fish will closely match the individual strategies of the multiple retailers positioning themselves on providing their customers with quality products, variety of choice or assortment, value, and service; all of which have implications for their fresh fish merchandising strategies.

A4.1.11 Information technology

With data capture systems such as EPOS and loyalty card programmes it will be possible to more accurately predict what customers are buying, their purchasing patterns and so on. Access to such information will, potentially, give the retailers even more control over what happens further down the supply chain. Demand, not what is landed, will drive the industry. While this is some way off, some retailers are attempting to take a more strategic view of the industry and predict how quota restrictions might impact on future supply and availability of fish.

A4.1.12 Joint marketing

Retailers will seek further commitment from the manufacturing/processing industry for joint promotions in the form of co-ordinated marketing activities. Current evidence suggests that the processing sector has a major influence on what species are promoted and one advantage of the wet fish counter lies in the opportunity to run short term promotions and special deals on certain species. Given the competition for shelf space, and the need for distribution through the multiple retailers, suppliers are under increasing pressure to fund promotional activities on their products.

A4.1.13 Retailer brands

The retailer commitment to own label will continue into the foreseeable future as an important element of building retail image. Fresh fish can be regarded as 'own label' as it reflects on the overall image of the retailer, hence the need to ensure consistent quality. The emphasis on freshness and quality is likely to increase with greater demands for two or three day old fish that is both fresher and offers greater 'shelf life'. Only in the frozen and canned sector with established names such as Bird's Eye, Ross, Bluecrest, Albert Fisher, John West and Princes, can strong brands withstand some of the pressure from retailer own brand.

A4.1.14 Traditional fishmonger

The number of members of the National Federation of Fishmongers has fallen to around 650 (Mintel 1998). There are currently around 1,100 independent fishmongers, 400 mobile fish vans, and another 400 independent retailers who sell fish but are not dedicated to selling only fish. In addition it has been estimated that some 200 fish and chip shops cook using 'wet' fish. There will continue to be a place for the specialist fishmonger, but the pressure from the multiple retailers is likely to be sustained. The independent fishmonger will have to trade on a high level of customer service and specialist knowledge and attempt to build a loyal customer base through the provision of high quality products and specialist advice. The trend towards one-stop shopping represents the greatest threat to the independent fishmongers.

A4.2 UK consumers

A relatively stable population and low population growth rates across Europe (0.1 per cent) mean that any increase in demand for fish is dependent on encouraging existing users to eat more fish, getting them to eat it more frequently or, more challenging, getting non users to try fish. Marketing and new product development have central roles to play in raising the demand for fish, particularly given the competition from other protein foods, but as fish prices rise consumers may switch their allegiance to other protein products. Building consumer demand for fish demands a commitment across the industry to raise consumer awareness and deliver a high quality product that meets consumer demand.

The interest in quality extends to fresh ingredients, quality control across the food chain, supplier regulation, government intervention, EC legislation, retailer channel control, and standardisation. For consumers there is a renewed focus on 'freshness', although consumer understanding of what is 'fresh' is not that clear, particularly for younger consumers who have a limited knowledge about how to evaluate freshness, and who are more likely to rely on labelling information or advice from the retailer or fishmonger.

The general trend is towards one stop shopping and this is reflected in the multiple retailers' share of the food market where the top six retailers account for around 40 per cent of food sales, or almost 70 per cent of wet fish sales. This poses a serious threat to the independent fishmonger but opens up new opportunities to the industry based on a captive audience.

Fresh fish remains 'inconvenient' for today's consumer in comparison to other products such as meat and chicken. It requires different purchasing, preparation and cooking skills and places very different demands on the consumer. Contrasting frequent and infrequent users of fish, Marshall and Gofton note the following:

Characteristics of frequent and infrequent fish users

Frequent fish users	*Infrequent fish users*
❑ Older, smaller households, educated, more experienced users ❑ Knowledgeable about species, freshness, cooking ❑ Using food for a wider range of social purposes, more cultivated tastes, experimenting with food ❑ Prepared to invest time in acquiring, choosing, preparing and serving food. ❑ Good cooking facilities ❑ More informed about food, diet and health ❑ fish, recipes	❑ Younger, larger households with younger children, less well educated ❑ Less experienced/knowledgeable about food in general, focus on 'feeding the family', rather than entertaining with food. ❑ Limited investment of time in acquiring, choosing, preparing and serving food. ❑ More limited cooking facilities. ❑ Less well informed about food, diet and health.

Adapted from Gofton and Marshall 1992

One of the main reasons for serving fresh fish is its healthy and nutritious image, but it is also seen as offering a change, some variety in the diet, and contributing towards a balanced diet. For experienced users it actually requires relatively little preparation - what could be simpler than grilling a fresh fillet of haddock. However, fish is still generally perceived as inferior to meat, and indeed much of its evaluation is in relation to meat in terms of value for money, flavour and taste; for example, meat is described as juicy, flavourful, substantial, filling, carveable, and flexible (in it's uses) while fish is regarded as watery, crumbly, insubstantial, boring and light (Gofton and Marshall 1992).

Consumers will become more aware of environmental issues, including concerns about public health, food safety, animal rights, and genetically modified foods. These concerns, including sustainability, could allow some smaller ports to establish themselves in niche markets where the inshore fishing area stock itself may become a brand, recognised down the supply chain even as far as the consumer. Fisheries management would however have to become more regionalised for such developments to be possible.

A4.3 Catering

In 1996, the last available figures, fish accounted for around 14 per cent of catering volume, compared to 62 per cent for red meat and 24 per cent for poultry (Mintel 1997). The annual average volume of fish in the UK catering market was 174,000 t but no information was available on the value of the catering market for fish. The sector was dominated by marine fin-fish (66 per cent of volume), followed by shellfish (15 per cent), freshwater (8 per cent) and other (1 per cent). In terms of species the UK catering market, in 1996, was dominated by cod (30 per cent), haddock (17 per cent), plaice (8 per cent), prawn (7 per cent) and salmon (7 per cent), although this sector has been growing over the past two years. While cod has highest penetration in the fish and chip trade and health sectors, haddock is more prevalent in fish and chip shops and services. Prawns and scampi has higher penetration in the pub trade while salmon is more prevalent in restaurant catering.

A diversity of catering establishments, from friers through to exclusive restaurants, continue to serve fish although fish and chip shops continue to dominate the sector, accounting for 31 per cent of all fish sold, followed by canteens (14 per cent) and pubs (13 per cent) (Table 3).

Table 3: Average annual catering fish purchases by sector 1996

Catering establishments	Annual average '000s t	percentage
Fish and chip shops	54.1	31.1
Canteens	23.5	13.5
Pubs	21.9	12.6
Education	19.3	11.1
Hotels	19.2	11.0
Restaurants	15.6	9.0
Health care	12.4	7.1
Cafes	4.0	2.3
Services	3.0	1.7
Clubs	1.0	0.6

Source: adapted from Marketpower

The decline in the number of fish and chip shops, cutbacks in workplace canteens and the general decline in eating out had a negative effect on the catering market for fish at the beginning of the 1990's. More recently demand for fish has benefited from the BSE beef crisis and a growing interest in fish from the catering trade. In one market research survey, conducted in February 1997, 57 per cent of consumers claimed to have eaten fish outside the home in the previous three months. This compared favourably with 53 per cent claiming to eat beef, 55 per cent claiming to eat poultry, although 68 per cent claimed to have eaten some form of red meat (Mintel 1997). The main appeal appears to lie in terms of health, value for money and popularity of the fish and chip shop. Individuals 25-44 and 55-64 were most likely to have eaten fish outside the home with a regional bias towards London, Anglia / Midlands and Yorkshire / N. East regions. Working managers and better-off families were most likely to have eaten fish outside the home (Mintel 1997). The same report identifies the most popular commercial and retail outlets for fish showing the growing importance of the pub/pub restaurant in this catering market (Table 4).

Much of the fish for catering (43 per cent) is sourced direct from the manufacturer or primary source, the remainder from wholesalers (40 per cent), the retail trade (15 per cent) or cash and carry (Mintel 1997). The bulk of marine fish is supplied by the wholesaler (45 per cent) or inland merchant (33 per cent) (Marketpower 1996).

Mid-sector restaurants are likely to demand fresh, quality fish to be prepared and cooked on the premises, although there are some questions over whether the industry can supply sufficient quantities of such product in the forms required by the restaurant trade.

Table 4: Top ten commercial and catering retail outlets

Catering outlet	Percentage of respondents
Pub/pub restaurant	71
Fish and chip shop/restaurant	64
Chinese restaurant/takeaway	47
Burger bar/chain	43
Café	37
Indian restaurant/takeaway	34
Pizza restaurant/takeaway	31
In store restaurant	23
Hotel	22
Traditional British restaurant	21

Source: adapted from Mintel 1997

The trend towards more eating out will favour the fish sector in two ways: through selection of fish when eating out and by encouraging consumers to try more exotic species or different fish dishes. It is of note that one of the main attractions of eating fish in a restaurant is that someone else carries the responsibility for selecting, preparing and cooking the product. The distinction between eating out and eating in is likely to become more blurred with the growth in take home meals, home delivery and supermarkets' ready to eat meals. Fish could become an important part of this sector of the food market.

Annex 5: Estimates of auction throughput

In the following tables we present estimates of the flows of unprocessed fresh fish and shellfish into and out of the main port economies of the UK. All figures are expressed in millions of pounds and are based on the reference point of 1997 landings, as recorded in Scottish, Northern Ireland and UK Sea Fisheries Landings Statistics.

Flows represented include landings by UK vessels to UK ports, exports of unprocessed live and chilled raw material, and imports of live and chilled raw material.

Sales channels represented include sale on auction of landing port, purchases from other port auctions, consignment to another UK auction, consignment from another landing port, direct sales from port landings to local or distant merchants and processors, and direct sales from landings at other ports to local merchants and processors.

These estimates of product flows are necessarily derivative. Whilst official records of landing to UK ports are collated and published, similar records for auction throughput, or destination of first hand sales, are not in the public domain. Indeed few such records exist in a consolidated form. Periodic consolidation exercises are undertaken, either in support of local or regional development planning, or as part of national evaluations, such as the 1996 Seafish review of the UK fish processing sector.

Accordingly, we have used our best efforts to bring together official data, informed knowledge of the structure and operation of the sector, informed opinion, and anecdotal information. Informal sources of information have been elicited through a simple telephone questionnaire survey, face to face interview of industry members, and telephone enquiries.

The biggest source of error in these tabulations is in the estimation of the amount and source of raw material entering the local port economy subsequent to first hand sale. No records are kept of such flows except on the basis of individual trades, and the accounts of individual companies. In addition, the allocation of supplies to different sales and distribution channels is open to conjecture at the individual port level, particularly with respect to the smaller ports.

The figures are, however, considered to hold up well as a more general profile of industry flows within the industry.

In **Table 1** the ports are listed according to the total value of landings. Those having port auctions in regular use are so identified, as are ports that have been officially nominated as designated ports. In the final two columns ports are identified in terms of two typologies (based on figures developed and shown in subsequent tables). The first associates landings with total value of fish sold on the local auction (1 – auction throughput exceeds local landings; 2 – local landings exceed local auction throughput; 3 – no local auction). The second extends this typology, but relates the total value of fresh unprocessed fish retained within the local economy to the total value of local landings (1 – retained volumes exceed local landings; 2 – ports with auctions, but where local landings exceed retained volumes; 3 – ports without auctions, where local landings exceed retained volumes).

Table 2 shows the value of landings by species group.

Table 3 apportions supplies by sales method and distribution channel. This apportionment is based on a slightly more complex species based allocation procedure, so as to adequately reflect the different industry practices associated with each fish type. These figures are then consolidated in **Table 4** which focuses on the source of fresh fish retained within the local port economy for the purposes of adding value through sorting and packing for onward sale, or for processing. Retention of such fish within the local economy indicates the capture of additional economic benefits from the material, but does not mean that such fish is subsequently consumed within that economy.

In **Table 5** comparison are made between the value of fish retained within the local economy, the proportion of local landings retained within that economy, and the value of fish estimated to be traded on the local auction.

Table 1 – Port status, landings and typology

	designated port	*port auction*	*1997 total landings*	*port typology by auction*	*by retention*
Peterhead	*	*	73	2	2
Aberdeen	*	*	23	1	1
Hull	*	*	16	1	1
Newlyn	*	*	23	2	2
Kinlochbervie	*	*	15	2	3
Grimsby	*	*	6	1	1
Fraserburgh	*	*	27	3	2
Kilkeel	*	*	9	2	2
Plymouth	*	*	9	2	1
Brixham	*	*	16	3	2
Scrabster	*	*	18	3	3
Lowestoft	*	*	8	2	3
Lerwick	*	*	16	3	3
Eyemouth	*	*	4	2	1
Milford Haven	*	*	6	3	3
Pittenweem	*	*	3	2	2
Ardglass	*	*	4	2	3
Portavogie	*	*	7	3	2
Whitby		*	4	3	3
Scalloway	*	*	3	2	3
Fleetwood	*	*	3	2	1
Looe		*	3	2	3
North Shields	*	*	3	3	2
Scarborough	*	*	4	3	3
Whitehaven		*	2	3	2
Lochinver	*	*	10	3	3
Ayr / Troon	*	*	8	3	3
Mallaig	*	*	13	3	3
Campbeltown		*	2	3	3
sub-totals – auction ports			**£337**		
sub-totals – non-auction ports			**£174**		
foreign landings			**£43**		
Totals			**£511**		

notes

port typology by auction:

1 - where auction throughput exceeds local landings

2 - where auction throughput amounts to 60 per cent of the value of local landings

3 - where auction throughput amounts to below 60 per cent of the value of local landings

4 - where no port auction is present

port typology by retention

the grades are as above, but in respect of the amount of fish retained in the local economy for second hand sale relative to the value of local landings

Table 2 – Value of landings by species group, 1997, in £M

	demersal round	*demersal flat*	*pelagics*	*nephrops*	*shellfish*	*TOT*
Peterhead	54	5	8	6	1	73
Aberdeen	20	2	0	1	1	23
Hull	16	0	0	0	0	16
Newlyn	9	9	1	0	4	23
Kinlochbervie	12	2	0	0	0	15
Grimsby	4	2	0	0	0	6
Fraserburgh	11	1	3	11	1	27
Kilkeel	4	0	0	5	0	9
Plymouth	1	3	2	0	3	9
Brixham	3	9	0	0	4	16
Scrabster	13	2	0	0	2	18
Lowestoft	2	6	0	0	0	8
Lerwick	5	0	8	0	2	16
Eyemouth	2	1	0	1	0	4
Milford Haven	4	1	0	0	2	6
Pittenweem	1	0	0	2	0	3
Ardglass	1	0	1	3	0	4
Portavogie	3	0	0	4	0	7
Whitby	3	1	0	0	1	4
Scalloway	3	0	0	0	0	3
Fleetwood	1	1	0	0	1	3
Looe	1	2	0	0	1	3
North Shields	1	1	0	1	0	3
Scarborough	3	1	0	0	0	4
Whitehaven	1	0	0	0	1	2
Lochinver	7	2	0	1	0	10
Ayr / Troon	1	0	0	3	3	8
Mallaig	0	1	1	7	4	13
Campbeltown	0	0	0	1	0	2
auction ports	£186	£50	£23	£45	£33	£337
non-auction ports	£64	£15	£8	£19	£67	£174
foreign landings	£31	£10	£2	£0	£0	£43
Totals	£260	£66	£31	£64	£90	£511

Table 3 – Raw material movements into and out of ports, by first hand sales method, 1997, in £M

	landings to auction		*consigned in to auction*		*landings to direct sale*	
	local	*away*	*local*	*away*	*local*	*away*
Peterhead	30	29	5	3	4	10
Aberdeen	17	6	0	6	1	1
Hull	7	1	9	4	0	0
Newlyn	11	5	1	1	3	3
Kinlochbervie	6	8	0	0	0	0
Grimsby	3	0	7	2	0	0
Fraserburgh	7	5	0	0	5	9
Kilkeel	6	2	0	0	0	0
Plymouth	3	1	2	2	3	2
Brixham	7	1	0	0	3	5
Lowestoft	3	4	0	0	0	1
Scrabster	1	5	0	0	1	1
Lerwick	1	2	0	0	7	4
Eyemouth	2	1	0	0	1	1
Milford Haven	1	0	1	1	1	1
Pittenweem	2	1	0	0	0	0
Ardglass	1	2	0	0	1	1
Portavogie	2	1	0	0	1	3
Whitby	1	1	0	0	1	1
Scalloway	1	1	0	0	0	0
Fleetwood	1	0	1	0	0	0
Looe	1	1	0	0	0	1
North Shields	1	1	0	0	0	1
Scarborough	1	1	0	0	1	1
Whitehaven	1	0	0	0	1	1
Lochinver	1	0	0	0	1	4
Ayr / Troon	0	0	0	0	3	4
Mallaig	1	0	0	0	4	8
Campbeltown	0	0	0	0	0	1
auction ports	£123	£77	£33	£17	£44	£61
non-auction ports	£0	£0	£0	£0	£45	£120
foreign landings	£13	£6	£0	£0	£6	£16
Totals	£135	£83	£33	£17	£95	£197

notes

1. the auction columns represent fish that is landed locally and sold on the local market
2. the consigned columns represent fish that is landed elsewhere but consigned for sale on the local auction
3. the direct sales columns represent fish that is landed locally and sold-on at first hand by direct negotiation
4. local means that the first hand sale is made to a local merchant or processor, who is then in a position to make the second hand sale
5. away means that the first hand sale is made to a merchant or processor outside the immediate port economy, passing on the opportunity to benefit from the second hand sale

Table 4 – Sources of raw material retained within local economy, 1997, in £M

	landings to local auction	*consigned into local auction*	*landings sold direct*	*bought 1st hand from elsewhere*	*TOTAL*
Peterhead	30	5	6	18	59
Aberdeen	17	6	1	38	62
Hull	7	9	0	25	41
Newlyn	11	1	3	1	16
Kinlochbervie	6	0	0	0	6
Grimsby	3	7	0	13	23
Fraserburgh	7	0	5	6	18
Kilkeel	6	0	0	2	8
Plymouth	3	2	3	2	10
Brixham	7	0	3	2	12
Lowestoft	6	0	1	0	7
Scrabster	2	0	0	1	3
Lerwick	1	0	7	1	9
Eyemouth	2	0	1	2	5
Milford Haven	1	1	1	0	3
Pittenweem	2	0	0	1	3
Ardglass	1	0	1	0	2
Portavogie	2	0	1	1	4
Whitby	1	0	1	0	2
Scalloway	1	0	0	0	1
Fleetwood	1	1	0	2	4
Looe	1	0	0	0	1
North Shields	1	0	0	0	1
Scarborough	1	0	1	0	2
Whitehaven	1	0	1	0	2
Lochinver	1	0	1	0	2
Ayr / Troon	0	0	3	0	3
Mallaig	1	0	4	1	6
Campbeltown	0	0	0	0	0
auction ports	£123	£42	£43	£129	£337
non-auction ports	£0	£0	£45	£9	£54
foreign landings	£13	£0	£6	£0	£19
Totals	£135	£33	£95	£124	£387

notes

- first column is local landings sold on the local auction and retained within the local economy for second hand sale
- second column is fish landed elsewhere but consigned to the local auction and retained within the local economy for second hand sale
- third column is local landings sold by direct negotiation to local merchants or processors
- fourth column is fish landed elsewhere and sold at first hand elsewhere, but purchased by local merchants or processors

Table 5 – Consolidation of traded volume by origin, sales method and retention for the purposes of adding value

	total raw material supplies to economy	*retained landings*	*total local landings*	*proportion of landings retained*	*estimate of auction throughput*
Peterhead	99	36	73	49%	68
Aberdeen	71	17	23	74%	31
Hull	54	7	16	46%	21
Newlyn	28	15	23	63%	19
Kinlochbervie	15	6	15	40%	14
Grimsby	27	4	6	60%	12
Fraserburgh	33	13	27	48%	12
Kilkeel	12	6	9	70%	9
Plymouth	15	6	9	70%	8
Brixham	17	10	16	62%	8
Scrabster	9	2	18	38%	6
Lowestoft	18	7	8	27%	5
Lerwick	17	8	16	53%	5
Eyemouth	6	2	4	52%	3
Milford Haven	8	2	6	26%	3
Pittenweem	4	2	3	58%	3
Ardglass	4	1	4	33%	3
Portavogie	8	3	7	44%	3
Whitby	5	2	4	40%	2
Scalloway	3	2	3	47%	2
Fleetwood	5	1	3	52%	2
Looe	4	1	3	44%	2
North Shields	4	2	3	54%	2
Scarborough	4	2	4	46%	2
Whitehaven	3	1	2	73%	1
Lochinver	10	1	10	14%	1
Ayr / Troon	8	3	8	39%	1
Mallaig	14	4	13	35%	1
Campbeltown	2	1	2	27%	0
sub-totals – auction ports	**£504**	**£167**	**£337**	**50%**	**£249**
sub-total – no auction ports	**£116**	**£52**	**£174**	**30%**	**£0**
foreign landings	**£43**	**£19**	**£43**	**44%**	**£0**
Totals	**£664**	**£238**	**£554**	**43%**	**£260**

notes

1. total supply of raw material to the economy - total value of fish transiting the local economy, whether traded first hand to local merchants or processors, sold first hand to outsiders, or bought first hand from other ports
2. retained landings - local landings sold by auction or direct negotiation to local merchants or processors for second hand sale
3. total local landings - the value of landings as recorded by the national fishery departments
4. (2.) divided by (3.)
5. estimate of auction throughput - value of auction sales, whether sourced locally or consigned from other ports

Annex 6: Change and barriers to change

The last ten years – a comparison of the industry today and ten years ago

Ten years ago	Today	Current barriers to change
General		
Early moves towards drafting of more stringent health and hygiene regulations, and development of a range of EU Health and Hygiene Directives affecting the fishery industry.	Greater awareness of health and hygiene in food handling, increasing dominance of market forces, and shift of emphasis towards codes of practice; a culmination of food hygiene concerns is the establishment of the Food Standards Agency.	Investment being directed towards remedial measures to achieve standards, a form of investment that is not generally matched by commensurate changes in revenues, and in fact has often been found to detract from sound commercial practice, and to delay investments in more immediately productive areas; conversely, well intentioned intervention by local authorities in the development of market facilities, etc., has disrupted the natural evolution of those markets, and has discouraged industry from funding in its own future.
Strong perception of supply-led development.	Growing perception of demand led development – growing signs of preparedness to fish for the market.	Many businesses do not accept that adjustment required, or un-prepared to make the adjustment; the short-termism remains.
Fishing had a high profile in the public eye - positive and negative images.	Increased media profile, but very confused and confusing messages being presented to the public about fishermen as husbanders of the marine environment or pillagers of the marine environment.	Mixed images of industry, and complexity of issues involved, acts as disincentive to commitment of public funds and political support to industry from those who are not directly affected by or involved with the fishing industry; in the competition for public support and a slice of public sector development funding, the industry does not usually come off well.
Unemployment high.	Unemployment low(er) and greater difficulty experienced by processors and skippers in sourcing and retaining skilled labour.	Changing work expectations (and possibly greater job opportunities) resulting in reduced recruitment to the sector - school leavers and others; age profile in the industry worsening; need to improve working conditions.

Ten years ago	Today	Current barriers to change
Increase in environmental awareness of buying public, but more limited concerns about food chain.	Public concerns about sustainability, use of additives, and minimising waste, but these concerns do not translate into buying behaviour.	The industry has failed to capitalise on the inherent logic that wild fish are "organic", and few can claim to be fishing in sustainable fisheries; most in the industry perceive the promotion of the environmental dimensions of fish and fishing as a costly distraction from the real issues of effective and equitable resource management and a policy environment that is supportive of the sector and through this supports and rewards good practice.
Resource		
Resources tight, but perception that could find new grounds / resources.	General acceptance that the resource limits have been reached for most fin-fish stocks, and that large marine eco-system interactions are still poorly understood.	Industry has been slowly adapting to increasing resource constraints. The consequential impacts of this situation have not yet percolated through the supply chain; there remain weak incentives to land quality, and current fish sales systems themselves are not efficient mechanisms for rewarding good practice; system still encourages skippers to go for volume; poor condition of stocks likely to result in further reductions in TACs and the firmer adoption and application of the "precautionary approach".
Fleet		
Programmes to encourage building of new and bigger vessels and expansion of the fleet.	Substantial contraction of fleet, and fleet change polarising to sophisticated large and small vessels.	Failure to meet MAGPs as a country delaying public financial support for vessel replacement and improvement; for some this is no impediment to change, but for the less profitable elements of the fleet this has considerable impact; it is unclear whether less profitable elements of fleet should fall victim to natural wastage, or whether they could operate profitably and productively in a slightly more supportive policy environment.
Vessel agents with substantial financial investment in fleet	Vessel agents have reduced financial involvement in vessels following a downturn in earnings in the early 90s	The financial underpinning of traditional social linkages within supply chain is weakening, increasing the impact of market forces on industry change; nevertheless, the remaining social links are impeding reaction to changing economic circumstances in others; sometimes such changes are supportive of dependent communities, sometimes they are not
Illegal fishing activity at generally acceptable levels, covered by normal enforcement activities	In recent years illegal fishing activity at unacceptable levels, and moves underway to substantially increase resources and systems available to enforcement agencies	Unstable industry structure compounded by management regime with limited effectiveness; over-quota landings and other illegal practices continue to undermine the legal trade in fish, though these practices are lessening in scale and impact, notably due to the correcting influences of industry dynamics – tradable quota, increased enforcement, moves to regionalisation
Spanish and Portuguese accession to CFP causing concern	Continuing concerns about uneven policing of management regime; Spanish presence now accepted	Attempts to increase product and financial flows by attracting foreign landings not welcome in all ports, though shifts in industry position apparent.

Ten years ago	Today	Current barriers to change
Resistance to days at sea effort limitation proposals	Formal recognition of track record entitlements, strong & dynamic market in sale of track record as vessel owners seek to establish legal operation	Smaller, capital poor, operators being pushed out; distortions arising as trading of quota / track record is being made only by those with cash surplus, though emerging bank and council support for quota purchases encouraging less cash rich to secure future operations, and to protect regional economic and community interests; growing industry interest in effort controls.
TACs and quotas set at conservative levels.	TACs and quotas set at precautionary levels.	Activities of extremist environmental groups favouring highly restrictive exploitation regimes causing fishermen to be less supportive of overtures from environmental groupings as a whole, though growing recognition and willingness to collaborate with more moderate groupings.
Port Markets		
Recognition of the negative impact of the over-filling of boxes on the quality of fish, and efforts made to discourage this practice.	Recognition of the negative impact of the over-filling of boxes on the quality of fish, and efforts made to discourage this practice, but practice still persists – predominantly in Scotland.	Systems of fisheries management – monitoring of landings, establishment of track record, and use of standard box weights when calculating landed volume – act against the establishment of good practice; under-filled boxes, which constitute good handling practice, can result in a weight penalty against the track record of that vessel unless special arrangements are made with the inspectors; the practice of over-filling boxes also obscures the premiums being paid for fish – lack of transparency.
Evidence of move towards globalisation of trade	Movement of fresh produce around the globe now widespread; trading, settlement and delivery systems facilitate cross-border trade, though informal trade barriers persist	Increasing numbers of UK vessels electing to land direct to foreign ports; more consignments to continental markets (mainly flat fish and deep sea species); scale, security of supply, and cost factors encourage UK processors to source main line raw material requirements from non-UK fisheries; UK industry affected by international economic situations (eg. Asia and Russia – though primarily affects pelagic industry)
Consignment of fish to other ports relatively uncommon	Consignment of fish to other port auctions now common-place	Benefits to local processing industry (and local economy) lost; tendency towards increasing peripheralisation of ports and communities; undermines local auction, with knock-on impacts on smaller vessels in the fleet; provides a disincentive to local investment in niche processing and distribution
Contract sales of fish only evident in the pelagic and prawn sub-sectors of the industry	Contract sales of fish direct to processors now commonplace in most sub-sectors	Less fish going across the auction; has the potential to undermine the capacity of facility owners and managers to operate profitably; has negative impact on smaller scale merchants and processors; further loss of price transparency

Ten years ago	Today	Current barriers to change
Many ports modifying facilities to cope with bigger boats and attracting boats from other, nearby, ports	Concentration of larger boat fleet around major ports, at a loss to smaller ports, and continuing investment in large port infrastructure	In mixed economy ports (commercial traffic, leisure interests, residential and commercial property portfolios), the search for profits pressuring port managers to diversify port infrastructure away from fishing; the combination of high fleet mobility and the growth in direct sales and consignment to other markets makes investment in port infrastructure increasingly risky, even in the larger ports
Widespread upgrading of port market premises to improve the environment in which fish is handled	Belief that widespread upgrading of port market premises is once again required to meet higher expectations of processing industry & multiples, to comply with changed role of port markets (emphasis on sorting and grading), and to remain competitive with continental markets	Major investment in new or upgraded markets has failed to address long-term needs of industry – in retrospect such upgrades have revamped old systems rather than addressed new system requirements; many ports are now seeking substantial funding for improvements to market infrastructure, when previous investments have lead to only limited improvements in trade practice, when there is continued widespread recognition of the need for substantial improvements in trade practice, but little industry support for the adoption of improvements, and when there is no consensus as to what the medium term requirements are; current evidence suggests that planned upgrades will respond to short-term interests only, will only proceed with substantial public funding, and will add little to product or process improvement
The use of vivier transport to carry live shellfish to continental markets becoming a fixture within the industry	Vivier trade now crucial component of the fishery economy in many small ports, but now augmented by recourse to air freighting of product, notably creel-caught prawns	Road connections to certain small ports cumbersome; lack of local management regime to increase high value sustainable shellfish fisheries; primary dependence on continental markets for the sale of live produce, and on continental operators for the collection of live shellfish; increasing concerns about impacts of water quality on shellfish quality, even in waters that might generally be considered un-polluted, and ad hoc response to need for depuration
Phasing out of wooden fish boxes completed	Increased use of full depth and half depth bins for bulk handling of fish on board larger vessels	Industry practices still lack transparency reflecting continuing industry belief that regulatory regime is at odds with operational realities and requirements; the lack of transparency is still evident in the widespread practice of over-filling boxes, resulting in loss of product quality; benefits and drawbacks of bins inconclusive; continuing need to return boxes acts as constraints on use of such boxes for distribution of fish
General failure to change traditional handling practices, despite improved physical environment	Some success in efforts to introduce more stringent codes of practice on markets, but still limited impact on handling practices	Traditional practices difficult to change, though some successes apparent; absence or failure of systems to reward good practice impedes adoption; separation between obligations of market owner, of Producer Organisations and of sales organisations compounds difficulties in changing entrenched practices; continued opposition to introduction of new technology that would open up market to competition

Ten years ago	Today	Current barriers to change
Processors		
Massive up-grading of packing and processing premises under pressure from EU Directive and local enforcement agencies	Substantial increases in water rates resulting from waste water directive threatens to force smaller processors out of business	Investment required in remedial measures rather than profit-making measures; many uncertain of the magnitude of charges and their ability to continue trading; with costs rising relative to revenues, many processors (large and small) will be forced out of business bringing about restructuring of this sub-sector – through consolidation and specialisation
Increasing use of fresh wet fish as raw material for processing industry	Higher specification of raw material requirements at same or lower cost; use of fresh and frozen raw material from large scale fisheries, and movement towards greater use of frozen-at-sea product for higher specification products	Domestic industry poorly equipped to compete with foreign sources of high volume white fish on basis of price, but by the same token, the domestic industry is not always able to meet the service requirements of UK and continental customers where high quality is rewarded with high prices; absence of any broad strategy to deal with situation hampering the rate at which industry adjusting to market forces, despite evidence that those vessels and ports that have actively sought to address matters of transparency and traceability have been rewarded
Major trade in whitefish block as raw material source for large scale processing concerns	After the temporary sourcing of low priced product from the Barents Sea, a downturn in the supplies of New Zealand hoki, and waning of supplies of Alaskan pollock, increased sourcing of white fish raw material from Iceland, the Faroes and Norway	Generally tight raw material supplies leave UK processors, notably those producing for volume low priced domestic market, in worsening commercial position; third country supplies no longer a secure option; increasing pressure from processors to secure local supplies of known quality of fish on regular basis, but limited response from UK supply structure; given the finite nature of resources available to the UK fleet, and the strong European demand for prime quality fish, even with the achievement of production efficiencies, there is little evidence that a strategy to supply UK bulk processors would be to the industry's advantage; nevertheless, in practice, a substantial proportion of UK landings does meet UK processor requirements - and would not command a higher price on continental markets – but the inability of current sales practices to deliver consistent quality and volumes of raw material represents a major barrier to further development of this trade; at the heart of this is a continuing reluctance on the part of the fleet to fish for the market
Movement away from simply breaded and battered products to novel coatings	Greater use of sauces and fillings in processed products offered for sale	New opportunities limited to the larger processors, but new products generally replacing rather than adding to existing purchases; limited overall growth in market, but nevertheless innovation tends to secure market share – places a cost burden on processors that only the few can accommodate; more specialist recipe dish market lower volume and requiring higher rate of innovation

Ten years ago	Today	Current barriers to change
Quality management systems being installed, but strongly focused on in-plant systems	Total quality management now a major concern of processors, with increasing emphasis on the whole supply chain, and on traceability	Current auction practices and systems remain a barrier to traceability; little response from vessel owners to provide traceability (though some early experiments in this direction); institutional infrastructure of the industry not geared to delivery of total quality management; inability to closely define and trace the quality of product through the distribution system leads to economic inefficiencies as each link in the chain seeks to counter the trading risks inherent in such loose specification
Pelagic klondyking at its peak	Pelagic klondyking occurring at much reduced level, with much more on-shore processing, but emergence of Norwegian processors as dominant force in this sub-sector	Limited capacities of many pelagic processors in Scotland to take one vessel's whole catch; competition with Norway which has a more stream-lined industry with substantial government assistance, and has invested heavily in marketing; UK on-shore sector has been slow to respond, though recent investment in shore infrastructure has started to reverse this; limited government support in meeting the competitive threat of Norwegian industry has exacerbated this situation; downturn in Far Eastern and Russian economies having major negative impact on this sector, and undermining basis of recent industry investments
Volume South American hake and Alaskan pollock on offer to processors	South American hake takes a back-seat, but also major concerns about the sustainability of the Alaskan pollack resource	Race for raw material and establishment of track record means that in part the deep water fisheries to the west of the British Isles have been over-fished before sustainable catch levels put in place; supplies of whitefish limited; increasing international pressure to bring resources under sustainable management, and increasing local pressure to return the economic benefits of nearby marine resources to the local economy through resource rentals and landing to local and joint venture processors
Volume sources of New Zealand hoki and orange roughy available to processors and supermarkets	Pioneering work of predominantly French fleet on the continental slope and mid-Atlantic deep water fisheries has encouraged UK fleet to exploit these resources; indications that NE Atlantic orange roughy resources already over-fished	Limited local processing in UK deep water species ports; benefits to local economy when fish is consigned to other ports is therefore limited; uncertainty over sustainability of deep water fisheries; limited UK market for the products of this fishery; local UK interest in the fishery primarily focused on catches of more traditional, and marketable, species such as monkfish, megrim and black halibut further encouraging unsustainable exploitation in this fishery
Retail		
Fish and chip shops joined by array of ethnic fast food outlets (pizzas, kebabs, and burgers)	Fish and chip shops holding own, whilst also providing wider range of fast foods	Consumer choices in fast food becoming more diverse, but options involving fish are not keeping pace; mixed health messages in relation to consumption of fatty foods generally unsupportive of message that fish is a good source of protein

Ten years ago	Today	Current barriers to change
Number of traditional fishmongers on the wane, and dominance of multiples in the supply of frozen and processed fish, but also picking up increasing share of fresh fish sales	Continued demise of the independent fishmonger, with the UK multiples now responsible for 60 per cent fresh fish sales (80 per cent frozen)	Domestic retailing in hands of a few companies; expansive fresh fish counters being used as a customer draw, but still supporting volume sales in only a few products; difficulties in selling different grades / qualities of the same product through the same outlet; buying power of multiples is a force to be reckoned with, though some evidence that trading risk reduction factors are now more relevant than price in sourcing decisions
Regular appearance of exotic species on menus	Dominance of high value and exotic species on up-market restaurant menus	Ready availability of exotics, even at a price premium, out-competes domestic species; relatively poor promotion of lesser UK "exotic" species, but volumes likely to remain low
Move towards production of recipe dishes building up	Recipe dishes an industry fixture, with increasing emphasis on chilled and ready-meal products	Use of imported fish; often using foreign primary and even secondary processors as more cost effective than domestic industry
Supermarkets cautious of fresh fish counters and great interest in CAP / MAP presentations and processed products	Supermarkets eagerly installing fresh fish counters and expanding range of fresh fish species and products displayed	Improvements in traceability and quality differentiation strongly resisted by supply industry; compromises ability of multiples to pass on clear messages of origin and freshness to consumers, and to make clear statements as to fish quality
Multiples looking to enhance the image of fish and fish products, but selling on the basis of price	Supermarket movement away from price towards quality oriented fish products	Resistance from supply industry to quality improvements requested by multiples on basis that this is not matched by improved prices
Heavy emphasis on retail packaging of products	Greater emphasis on displaying the product, using good package design; less emphasis on fully enclosing product in retail carton	Conflict between product branding and promotion requirements of processors / multiples, conflicting messages from consumers with regard to expectations of quality, food safety, naturalness, minimal use of additives and preservatives, use of minimal or natural packaging, but positive reaction to more elaborate packaging, promotion and branding; need to comply with the packaging directive

Annex 7: Exploration of what happens between now and 2010

In the following tabulation we explore possible futures, based on a broad assessment of past industry trends, current industry dynamics, and positive and less positive outcomes resulting from such dynamics.

Big change	Small change	Likely outcome
1. A balance is achieved between fleet capacity, resource strength and vessel economics that allows for a dynamic but broadly equitable allocation of resource access permits that enables those in the fishing industry to earn socially acceptable returns for their efforts.	The fishery management regime fails to balance fleet capacity and resources, produces a skewed distribution of resource access permits (favouring capital) resulting in a wide spread in sector incomes, and continued strong incentive to supplement income from harvesting over-quota fish.	There is likely to be significant movement towards the more favourable position, but ten years is too short a time to resolve such a complex issue; nevertheless the link between vessel and port is likely to become more stable, and skippers are likely to seek improved depth and quality of support from port services, and increased transparency in information provision and in product pricing; skippers are likely to become more constructively critical of first hand sales systems employed.
2. British ports attract a disproportionately high level of fish landings relative to the size and power of the domestic fleet, both from quota accumulation and the attracting of other vessels to land at UK ports, through improved service provision, greater transparency of operation, and closer contact with vessel operators and distant fish buyers and processors.	British ports attract a disproportionately low level of fish landings relative to the size and power of the domestic fleet as more and more UK vessels land directly to continental ports; resulting from poor standards of service provision, a lack of transparency in trade practices, and the realisation of stronger prices on continental markets.	There will be winners and losers in this area as UK ports seek to out compete each other as well as to out compete the other ports located along the Atlantic seaboard of Europe; there is already evidence of over-capacity on a regional basis which, if continued, will require such ports to levy higher service charges than competitors that have achieved a better match between designed and actual capacity usage; where ports seek to compete in the same market-place, and construct infrastructures that together are clearly at odds with practical usage, it is plausible to suggest that at best only one such port will achieve efficient operation, and that there remains a strong possibility that none will achieve appropriate standards and costs of operation; this is likely to be avoided where ports seek efficient operation through specialisation; an interesting example of this type of conundrum where ports have both increased infrastructure capacity and sought to specialise is the relationship between the ports of Kinlochbervie, Lochinver and Mallaig.

3. The UK industry manages to capture increasing economic benefits from the landing, processing and dispatch of species generally destined for markets elsewhere in western Europe – through improved client and market linkage, and coherent and consistent strategies to market port services.	Frustration with the inability of the UK industry to facilitate market requirements encourages more and more continental traders and processors to establish sourcing operations at British ports using their own staff and repatriating profits to head office.	Advance bases for foreign companies have already been established in various parts of the UK but in the main they are thought to be exploiting transient market opportunities which are disappearing as indigenous companies become more adept at meeting the market requirements of foreign customers; a failure to embrace modern communications and information exchange technologies will, however, once again encourage foreign operators (who have already embraced IT) to exploit transient market opportunities; the range and qualify of services that a port can provide in supporting the first hand sale of such fish will be critical in where and how such sale is transacted – whether it is by auction, contract, consignment or direct sale.
4. Substantially improved information flows on the expected and actual supply of raw material to the western European fish distribution systems substantially improves the efficiency of the distributive system, with benefits accruing primarily to catchers (in higher prices) and consumers (in higher quality at proportionately lower prices).	A fractured flow of supply-side information continues to support inefficiencies within the distributive systems, to the advantage of fish selling companies and wholesale traders, and the disadvantage of catchers and consumers.	The inevitability of major restructuring amongst fish merchants and processors will sharpen their quest for containment of costs, and the achievement of operational efficiencies; in part they will seek to achieve this through improved information flows within the supply chain; though preferential access to information will remain a powerful tool of competition, the flow of price, quality and supply information within the industry will be greatly increased.
5. UK fishing ports as a whole remain competitive within the wider western European arena, as a result of achieving a high level of consensus amongst port users as to how to service identified markets, and how to do so from a strategic perspective.	The various components of the UK industry fail to focus on the issue of competitiveness in a Single European Market, fail to approach the market from a strategic perspective, and remain determinedly parochial in outlook.	On past performance the probability of the UK industry failing to take a strategic approach to marketing remains high; similarly, on the basis of past performance, the industry is slow to adopt new technologies (unlike competitors on the continent); nevertheless, the finite nature of the resource and the strength of demand from continental markets is unlikely to diminish the trade, but inaction on the part of the UK industry will favour the realisation of the less favourable outcome listed under 3 above.

6. All UK fishing ports find an economically viable future (involving major or minor fishing industry involvement, or indeed withdrawal from fishery involvement altogether) based on a broadly accepted strategic approach to planning at an industry rather than simply a regional or port level, resulting in the specific down-grading of some ports and the up-grading of others, and in increasing specialisation – whether on various dimensions of the fishing industry, on other services and manufacturing industries, on leisure and tourism, or on specific mixes of the same.	UK fishing ports fail to sign up to a common co-operative vision of the future, and instead seek to out-manoeuvre or out-perform other ports through heavy public sector investment and the wielding of political influence – resulting in the maintenance of regional divisions within the industry, inefficient patterns of investment within the industry, and a failure to compete within Europe.	There is little historic evidence to suggest that the UK industry is capable of taking a concerted position on the strategic development of its ports, and is thus much more likely to opt for out and out competition; despite this, however, it is likely that strategic alliances will be struck between ports (both at a UK and a wider European level) where common interests are identified – some will share similar specialisations, others will get together because they do not share similar specialisations, but rather complement the nature and scale of services and products provided to potential clients; such alliances will be most in evidence between smaller ports seeking to capitalise on the highest qualities of product and service; differences in ownership and management structure of British ports will in some instances make such strategic alliances more difficult to achieve
7. Greater transparency in the trading of fish, resulting in significant efficiency gains, is achieved in part by all fish entering the UK supply chain doing so on the basis of a clear denomination of the weight and species of fish concerned – whether the fish is put across a market floor, consigned to other ports, consigned direct to processors' premises or over-landed to continental markets; all prices are quoted on the basis of price per kilo.	The industry continues to resist transparency in the trading of fish along the supply chain, under-mining the adoption of improved on-board handling practices, and supporting the continued landing of over-quota fish – through acceptance of clandestine landings, over-filling of boxes, and the mis-identification of species landed.	There is likely to be further growth in the off-market trade in fish (through both contract and direct sale); currently about half of landings, by first hand sale value, are estimated to be sold by auction, and this proportion might reasonably be expected to fall to something in the order of 45 per cent over the next ten years (a possible annual loss in revenues to specific market infrastructures of something over £1 M at current prices); those port auctions serving distant markets, and where a variety of grading standards may be appropriate, will tend to opt for tight product specification, and probably the use of electronic auctioning and trading systems; for the domestic market, port auctions selling relatively small volumes of high value and high quality fish are also likely to opt for such narrow specification, and possibly the use of remote bidding systems; trade in large volume products will continue to be by box unit, albeit in line with broadly accepted, and much improved, standards of market operation.

8. For the larger sized vessels in the European fleet, the sale of fish prior to landing, using formalised electronic trading systems, becomes an acceptable and regularly used method of trade for many larger vessels, either through direct contact with buyers or mediated through the vessel's agent	For the larger sized vessels in the European fleet, the sale of fish prior to landing is achieved using informal systems relying on the use of satellite link for voice, e-mail or fax link to arrange sales, primarily through the vessel's agent	Vessels are already regularly in contact with their respective agents, informing them of their progress; this is the basis of much of the existing direct and contract sales of pelagic and demersal fish; accordingly the switch to the use of more formalised systems is very likely, but this will only form one of several avenues open to skippers and agents for the disposal of catches; retaining a flexible approach to first hand sales is likely to dominate, incorporating quayside auction sales in most ports where they currently exist together with a variety of negotiated sales systems; selling at sea is likely to accelerate the adoption of improved forms and levels of information exchange.
9. The auctioning of fish continues to play a crucial role in establishing a market price for a wide range of species and fresh products, with a balance established between the use of open shout auction, electronic clock systems, linked markets, and remote bidding facilities; few markets depend exclusively on any one system, and the choice of sales systems that can be accessed remains fluid.	The role of auction systems reduces within the UK industry, with greater reliance on pre-arranged contracts, and sale by private treaty; open shout auction, electronic clock and remote bidding systems are predominantly seen as applicable to specialist markets selling small quantities of high value species and products only.	In the larger ports, and some others, the physical structure of the port market building will become less associated with the port auction than with the place where fish is received, sorted, graded, and laid out for inspection; the auctions themselves will increasingly take place away from the fish, using a clock system, though the practice of selling some types of fish by shout auction will undoubtedly continue (fish destined for predominantly local distribution, fish destined for local processors, prime quality fish where fast distribution is of the essence); fish handling logistics will favour multi-chambered temperature controlled premises suited to a range of uses; flexible use will allow port operators to accommodate changing market conditions and fashions, and extend the useful life of the building without incurring high additional costs; smaller ports, and those constrained by the availability of space, will have fewer options open to them, but will tend to compete effectively through specialisation (prime fish for the catering sector, live shellfish, air freighted fish, shorter distance distribution), incorporating the use of various forms of IT to link with other ports, and to link with customers (hub systems, advance supplies information, contract sales, internet trading, forward trading).

10. The larger fish landing centres construct large, multi-chambered, enclosed, temperature controlled, spaces for the handling, sorting, grading, re-boxing, display, sale and dispatch of fresh (and where appropriate frozen) fish; smaller or more specialist fishing ports concentrate on providing a range of leased or own-build facilities for packers, merchants and dispatchers to work from.	Ports fail to provide the enclosed spaces necessary to facilitate effective sorting and grading of fish prior to first hand sale, under-mining the competitiveness of the auction system, and encouraging greater reliance on contract and telephone sales.	Under current systems of public subsidy, a degree of head to head competition between ports will tend to encourage over-capitalisation in facilities, based on economic appraisal systems and funding decision-making structures that do not adequately penalise over-optimistic projections of future throughput, particularly where they are based on capturing trade from other ports using exactly the same arguments for their own infrastructure development proposals; if, as seems quite feasible, public funding of such facilities is much reduced, then port infrastructure development will be primarily constrained by the extent of the financial support for any one proposal emanating from the processors and merchants using a particular port; this is likely to constrain moves to over-capitalisation, and encourage more market oriented port developments; those ports that restructure first may capture the business of the retail multiples, since multiples would rather source from a limited number of known sites, but they may also attract increased interest from continental buyers.
11. Considerable restructuring of the wholesale and processing sub-sectors of the industry has sharpened demarcations between the different supply channels – on the basis of scale and intended final market – with the loss of less efficient / less profitable operations, some reduction in total employment, but improvements in profitability, skills levels and job security arising from broad efficiency gains, improved security of raw material supply, and achievement of economies of scale through effective planning gains	Strong resistance to change in many parts of the industry, but most notably in the first hand sales systems, has prevented the achievement of industry-wide efficiency improvements; this has resulted in the increasing dominance of the industry by a few large ports, and the undermining of public agency efforts to broaden the fishery industry base of medium and smaller sized landing centres (mainly seeking establishment of small, specialist packing and processing businesses); as a result the UK fishery industry has failed to maximise the capture of economic benefits from its proximity to prime fishery resources, and employment in the industry is at an all time low	Market forces are likely to rule the relatively rapid restructuring of this sub-sector (in contrast to the slow and protracted restructuring of the fleet), with the race for market share focusing more towards specialisation; as a result the more favourable outcome is highly realistic

12. On balance, species for species, the average unit value of fish landed to UK ports exceeds that of raw material imports destined for the industrial scale processors, in recognition of its higher specification; imports of prime quality cold water fish species are also on the decrease.	The quality of larger volume fish landings to UK ports remains mediocre, with direct impacts on prices paid, the markets the fish is sold into, the volumes needed to be caught to ensure economic viability and the market credibility of the UK industry; imports of prime quality fish are on the increase.	Given the backdrop of economic pressures on both producers and caterers / retailers to deliver consistent and narrowly specified product, it seems highly likely that more overt moves towards more sustainable fishing practices will follow; the question is over what time scale will this shift in industry behaviour take place; given the limited interest, to date, of the consumer in such matters, it might be expected to take some time; given the economic pressures from within the sector, however, market advantage will be achieved by those sub-sectors of the industry that adopt such practices sooner rather than later – not just from the adoption of stronger "environmental" characteristics, but from real improvements in the economics of operation relative to the market price for high quality product of known provenance; current auction practices are incompatible with the need to maintain the "chain of custody" needed to support claims of known provenance – unless the auction systems employed within the industry become much more transparent the sale of such fish will achieved by contract or negotiated sale, increasingly mediated using the internet.
13. The role of supermarkets in the sale of fresh wet fish falls back to about fifty per cent, as improvements in quality combined with efficiency gains allow retailers to trade higher sales for modest price reductions, encouraging a resurgence of specialist high quality fishmongers – unlikely to occur across the board, but already evident in areas with high disposable income.	Failure to pass on efficiency gains in the form of lower prices to consumers ensures that fish consumption patterns stagnate, further under-mining the viability of independent fishmongers and enabling the multiple retailers to further consolidate retail sales in their hands.	The UK market is capable of absorbing higher quality fish, without any significant downturn in market volume (despite some obvious increases in the average value of fish); on this basis the retail sector can afford to balance quality and volume with some discounting, and the transfer of some efficiency gains to the consumer; this will only be sustained if there is a permanent improvement in the consumer image of fish and fish products.

14. The multiples continue to dominate the retail sale of frozen fish and fish products, selling an increasing proportion of compound products and meals relative to simple fillet and coated products, and utilising a wider range of fish species in their products	The multiples continue to dominate the retail sale of frozen fish and fish products, but focus on a relatively limited range of medium priced products, utilising a narrow range of fish species	In all probability the only change in the frozen fish sector will be a widening of the range of species of raw material used in the preparation of products, with the potential that some such species will receive recognition by name; the multiples will continue to dominate this sector; some product and quality differentiation may be established with respect to "frozen at sea" products, supporting diversification of the fleet to include sophisticated medium sized freezer factory trawlers in some fisheries; as a result, the ingredients for most of the frozen product sold in the UK will be sourced from industrial scale fisheries prosecuted elsewhere in the world – much as is the case today; prime quality fish caught by the UK fleet will find a better market in the fresh fish trade, sold to the UK catering sector, and exported to continental markets; where auctions can underpin such quality and promote open competition for such product amongst a wide range of buyers, this sales method will continue to be favoured by the industry; in the future such conditions are likely to be met where concentrations of smaller service oriented merchants capable of meeting stringent customer requirements regularly buy off one or more shout or electronic auction markets, and/or where port auctions facilitate remote purchase of fish as the norm.
15. High levels of consumption of live, cooked and otherwise processed preparations of shellfish (molluscs and crustacea) supports high value, dynamic, and sustainable, inshore fishing and farming activities, to the benefit of smaller ports and coastal communities.	Consumption of tropical and cold water shrimp products continues to dominate this sub-sector, with limited success in winning over the wider consuming public to greater consumption of mussels, clams, etc.	The UK consumer is likely to develop an increased taste for high quality shellfish, but most of the volume gains will be accommodated from aquaculture, with wild harvests still predominantly destined for continental markets, where strong demand keeps prices buoyant; there is little evidence at present that the likes of crab, lobster and scallops would be sold by auction, but this could become a reality where groups of shellfish ports sought to operate a virtual electronic auction using a hub auction system; if this were to occur it would, in all likelihood, be pioneered by the nephrops processing sector, as it tries to reduce the costs of sourcing raw material from a large number of small ports; prior to this time, suppliers are likely to experiment with internet mediated trading, using the internet to provide current and future customers with information on supplies, and in some cases using a trading board structure to forward sell product.

Annex 8: Steering group members

K. Beeken	Federation of British Port Wholesale Fish Merchant's Associations
M. Boyers	Grimsby Fish Merchants' Association Limited
P. Bromley	Sutton Harbour Company
R. Fraser	Scottish WFPA, Salesmen's Section
R. James	Northern Ireland FPO Limited
G. Masson	UKAFPO Limited
G. MacRae	Fraserburgh Harbour Commissioners
B. McCann	Fraserburgh Harbour Commissioners
R. Milne	AFCAMA Limited
R. Murray	Fish Salesmens Association (Scotland) Limited
J. Paterson	Peterhead Harbour Trustees
A. Strachan	Denholms Seafoods Limited
M. Townsend	National Federation of Fishermen's Organisations